Teaching the Child in Front of You in a Changing World

Master in Teaching Program 2006-2008 Conference Proceedings

Master in Teaching Program 2006-2008

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Introduction

The papers contained in this Conference Proceedings represent scholarly work completed during the academic year 2006-07 by first-year graduate students enrolled in the Masters in Teaching Program. These teacher candidate authors worked through a series of phases in bringing their papers to the production stage. They selected and developed topics, wrote annotated bibliographies, conducted reviews of research on their respective topics, and ended by writing recommendations for practice. Authors followed the documentation guidelines from the American Psychological Association thanks to EndNote software. To be included in these proceedings, papers had to meet required performance levels as articulated by their faculty in a detailed conference paper assessment rubric. For this Winter 2008 conference, teacher candidate authors were required to give oral presentations enhanced with multimedia in order to emphasize the key aspects of their papers.

As the Table of Contents to the Proceedings attests, the students of the Masters in Teaching class of 2008 have investigated a wide range of critical issues that face teachers and their schools. Topics range from specific classroom applications to broad policy issues.

A huge congratulations is extended to these authors from all of the faculty who have been involved in this process.

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Learning in Deed:
Service Learning and the Educational Effects on Students in the K-12 Classroom

by Stacee Anderson

This paper reviews the effects of service learning on student academic performance, school-wide measures, and civic responsibility. Service learning is defined as a teaching and learning strategy that integrates meaningful community service with instruction and reflection. Research indicates service learning offers extensive benefits in academic learning as well as positive influences in student attitude and civic engagement. Studies show varying degrees of positive results, with greatest impact on at-risk students. In addition, this paper addresses the problems of non-systematic implementation, actual benefit to communities, and burden on teachers. Recommendations are made to include teachers in research studies and the need to demonstrate that service learning is a successful teaching strategy.

Introduction

The past several decades have seen a tremendous increase in the nation’s desire to implement more community efforts (“Corporation for National and Community Service,” 2006). The cry has gone out to educators to help mend a faltering democracy. One answer has been in the area of service learning as a means to enhance communities and give opportunities to students to realize a meaningful and valuable role in that community (Billig, 2000). The idea of involving students in serving their community is universally appealing. With the growing number of environmental and social problems in the United States, schools often take their curriculum outside the classroom in community service.

For the purposes of this paper, the definition of service learning has been taken from the National Service Learning Clearinghouse. The definition established by this group reads, “Service-learning is a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities” (Wade, 1997, p. 19). This definition specifies that the service experience will be integrated in the academic curriculum and involve student reflection.

Service learning can be found in nearly one-third of all public K-12 schools and in one-half of all high schools (Skinner & Chapman, 1999). The statistics indicate many educators expanding on service learning as it continues to grow in the United States. The National Commission on Service-Learning estimates that in the 2000-2001 academic year, more than 13 million students participated in service and service learning (“Corporation for National and Community Service,” 2006). With the explosion of service activities, it becomes necessary to examine the benefits and problems associated with service learning in education.

Many questions arise and studies have been conducted to discover if service learning is having its desired outcome. Does service learning have an impact on the student and community? Is it worth the many resources used from the school and community? Should service learning be a mandatory requirement? While there are many worthwhile questions to consider from the government and community perspective, the following review will only address the outcomes of service learning on the student. This paper attempts to answer the following question: In what ways does service learning effect academic performance, student attitudes, school-wide measures, and a sense of civic responsibility?

Literature Review

Philosophy of Service Learning

Service learning falls under the “experiential education” umbrella of philosophy. Many educators have researched experiential learning, but John Dewey is often considered the father of this method (Billig & Waterman, 2003). Although Dewey never addressed service learning as a theme, in his book Experience and Education he promoted and clarified the meaning of experience within education. Dewey argued that all education comes from experience, but he also allowed that some experience would lead to “mis-education” (Dewey, 1938/1997, p. 25). Dewey observed that traditional education is filled with experience, but can often be poor quality.

Dewey (1938/1997) suggested that guidance and direction from the teacher are needed to ensure the experience be educative. An effective educator will use the student’s world, both physical and social, to extract ways to build up experiences that the student might learn from. The educator should be aware of
the learner’s past experience as well as future experiences that might impact the student.

One principle Dewey (1938/1997) evaluated is that of interaction, which he used as a term to interpret an experience. There are two equal forces at play in experiences, that of objective conditions and that of internal conditions. The objective conditions happen outside of the learner or the external conditions that come into play. Internal conditions refer to how the experience affects the individual learner (Dewey, 1938/1997). Furthermore, he argued that when there is a healthy balance between the two forces then experience becomes an interaction. Dewey’s (1938/1997) theory on interaction has a direct influence on service learning. Service learning requires interaction of teacher and student as well as interaction of student and community. The impact of the interaction on the student enhances the learning experience.

Although John Dewey’s philosophy is significant and central to service learning, other theorists also support the theme. Lev Vygotsky, a Russian psychologist, whose work, because of communist censorship, was not known by most United States scholars until recently. Vygotsky proposed that individuals would learn best through their social interaction with others. This interaction would bring about the construction of new ideas. Through social interaction with teachers, peers, or the community, learning would be enhanced (Tudge, 1990). Vygotsky did not directly assess service learning, but similar to Dewey, his theories support and lend credence to service learning programs.

Another theorist whose work supports service learning is Paulo Freire. In his writing *Pedagogy of the Oppressed*, Freire’s model of dialogic is deeply rooted within social praxis, reflection, and political action (Freire, 1998). His belief that the educational process depends on the extent to which individuals participate in co-inquiry and learning from one another on an equal basis gives added support to the theory of service learning.

James Veninga and Noelle McAfee (1997) also lend support to the role of the humanities and their ability to connect citizens to a sense of community. In their work, *Standing with the Public*, they show the value of integrating learning with the real world (Veninga & McAfee, 1997). This type of learning is what experiential education embraces and is the basis of service learning.

**Historical Background of Service**

The history of “service” in the United States reaches as far back as early accounts of Native peoples. Service is currently found in the efforts of many organizations and individuals to help victims of natural disasters, military conflicts, and humanitarian aide. Although U.S. citizens are often viewed as being competitive and self-absorbed, the nation’s history often shows a communal ethic seen in many grassroots movements such as the Civil Rights crusade and Boy Scouts of America.

The history of service in government-sponsored programs reaches back to the early 1900’s. In the 1930s, Franklin Delano Roosevelt instituted many service programs such as the Civilian Conservation Corps (CCC) which hired young unemployed men to work on rural, local projects (Corporation for National and Community Service, 2006). In 1961, John F. Kennedy established the Peace Corps to enable U.S. citizens to learn about public service, the duties of citizenship, and the international responsibilities of the United States to less developed countries (Wade, 2000). More recently established is the National and Community Service Trust Act of 1993 that connects U.S. citizens with varying opportunities to give back to their communities. This legislation created Senior Corps, AmeriCorps, and Learn and Serve America each with the responsibility of mobilizing U.S. citizens into service (Corporation for National and Community Service, 2006). Learn and Serve, in particular, was established to provide funding for schools and their community based service learning programs (Melchior, 2000). Following the federal funding by the Bush and Clinton administrations, school curriculum began to include service learning programs (Billig, 2003).

**Definition and Implementation of Service Learning**

Similar to community service, service learning requires the student to serve in his/her community. Service learning takes the process one step further, however, by incorporating the service experience directly into the school curriculum. Thus, “service learning” is defined as a teaching and learning strategy that integrates service, instruction, and reflection to enrich learning, teach civic responsibility, and strengthen communities (Wade, 1997). Service learning can be part of a large, district-wide service learning event or focus on a single school. At a minimum, service learning should be tied to a formal, structured curriculum. This often includes student discussions, writings, presentations, and other means of reflection on the service experience (Melchior, 2000).

From 1984-1997 the number of K-12 students participating in service learning rose from 900,000 to 12,605,740 with the percentage of high school students increasing from 2% to 25% (Billig, 2000). The National Center for Education Statistics (NCES) of the U.S. Department of Education conducted a
study in 1999 to provide estimates of the number of public school children involved in service learning. The survey also provided data on school engagement in community service. The results of the study showed an increase in the percentage of public schools involved in public service with much of it being integrated into service learning. The reasons most frequently cited for incorporating service learning revolved around strengthening relations among students, the school, and the community (Skinner & Chapman, 1999).

As the number of schools participating in service learning has increased, so has the number of testimonials endorsing the value of the program. These positive testimonials come from students that have participated in the project, teachers conducting the program, administrators overseeing the program, and by communities that have benefited from the service learning projects (Bell, 1999). Testimonials, however, have limited use in educational research or with policy makers because there is often a vested interest in the individual giving the testimonial of wanting to see the program continue. Therefore, these testimonials may not depict an accurate portrayal of the program. This literature review will attempt to address the qualitative and quantitative studies that have covered service learning in regards to academic performance, student attitude, and civic responsibility in the K-12 classroom.

Service Learning Impact on Individual Student Learning

The belief that service learning will lead to better academic performance has led to an explosion of service learning programs. The leading and most dependable data regarding the effect of service learning on academic performance is found in studies of cross-age and peer tutoring. Wade (1997) examined a meta-analysis, establishing that students did receive academic enhancement from tutoring although the gains shown there were marginal. Another meta-analysis study on tutoring conducted by Hedin (1987) also found the students showed an academic gain. Contrary to Cohen, Hedin’s study suggested that an elementary or secondary school that implemented a well-designed peer or cross-age teaching component to their curriculum would find significant gains in academic achievement as well as interpersonal growth.

Williams (1991) included evidence on the academic achievement and personal gains by junior high and high school students. Williams (1991) found that students who participated in fieldwork had higher grade-point averages at the completion of their program. Other studies show that students that spend more time with an adult mentor at the workplace had a higher grade-point average than those students who spent less time with adult mentors (Melaville, Berg, & Blank, 2006).

Positive gains in academic performance were established early in service learning research. The current educational climate, however, focuses more upon standards-based education than academic gains in general. Several studies have indicated that this type of performance can also be linked to service learning. In California, more than half the schools that implemented service learning had a moderate to strong positive gain on student achievement tests in reading and language arts (Billig, 2000).

Another study in Colorado’s Jefferson County provided further evidence that service learning can help student achievement on content standards. Jefferson County participated in Active Citizenship Today (ACT), a five-year project that included the development of a number of semester-long service learning projects. One of the language art standards required students to locate, evaluate, and use relevant sources of information in reading and writing. The research aspect of the service learning project provided social studies teachers with the opportunity to support classroom curriculum as well as meet content standards (Loney, 2000).

Service learning can show positive gains in academic performance as well as standards-based performance. Traditional school curriculum, instruction, and daily schedules often fail to address the needs of students (Wade, 2000). Service learning offers alternative school organizational and curricular models that lend the support individual students require for academic success. Service learning synthesizes the relevancy of the curriculum to the individual student, allowing the student to take responsibility for his/her own learning (Wade, 2000).

Service Learning Impact on School-wide Measures

Service learning offers positive gains in school wide measures such as attendance and dropout rates as well as the gains demonstrated in academic standards. Many studies have taken place in Florida concerning service learning because of the state’s unique standing in the field. When federal funds became available in 1992, Florida was in an excellent position to implement programs through Learn & Serve America. The state already had students engaged in K-12 service activities and was able to quickly expand through the added federal grants. During the funding period, data was collected from the subgrantees. One of the questions asked for a comparison of participating students’ absences before and during their service learning projects. Forty-five schools responded to the question, with a decrease in
absences shown in 62% of the schools (Follman & Muldoon, 1997).

The same Florida report also rated the attendance in at-risk students. At-risk students were defined by subgrantees as students characterized as likely dropouts; severely learning disabled; emotionally, mentally, or physically handicapped; frequently referred for inappropriate behavior; or those who had entered the juvenile justice system. The at-risk students showed a decrease in absences in 68% of the schools (Follman & Muldoon, 1997). A question arises here if the at-risk students showed greater improvement merely because they had further to rise, or did participation have a greater impact on them? Also, can the data be trusted when it was not collected under rigorous conditions? The Florida study does show, however, a clear trend in positive impacts on attendance in K-12 students that are engaged in student learning. The Florida study did not determine the impact one individual project had at any given school or on any individual student. The data would need to be examined school by school to find out this correlation.

A larger school-wide issue of at-risk and high-risk students and the impact of service learning have also been studied. A positive relationship between a student’s resiliency and service learning has been shown (Degelman, 1999). Sagor’s (1997) study implies that an experience that leads a student to resiliency, such as service learning, will include a sense of belonging and usefulness. Service learning has been found to be a potentially powerful dropout prevention tool (Duckenfield & Swanson, 1992). Researchers have shown that successful programs for students of higher risk should include course work that emphasizes practical, real-world problem solving and experience (Duckenfield & Swanson, 1992). Practical, real-world experience is fundamental to service learning programs; thus service learning becomes an excellent means of dropout prevention.

Service Learning Impact on Student Attitude

As well as positive gains in academic performance, studies also suggest that service learning activities positively influence attitude and self-esteem. Conrad and Hedin (1982) noted gains in self-confidence when students were engaged in service learning. Service learning also fulfills student need for belonging and approval from others, self-worth, and the need for acceptance by peers and adults (Duckenfield & Swanson, 1992).

Calabrese and Schumer (1986) conducted a study on community service in the school classroom. This study suggests that involvement in service may significantly reduce levels of alienation and deviant behavior in adolescents. In this study, however, the results reflected the student’s continued involvement with a community service project. This continuous involvement gave the student more responsibility and positive community feedback. Continuing involvement does not happen in all service learning programs. Another contributing factor to the reduction of feelings of alienation was the ability of the at-risk student to circumvent the alienating situations often found in the school system by involvement with caring, significant adults (Calabrese & Schumer, 1986).

The results of several studies indicate an increase in student personal and social responsibility as related to their involvement in service learning. Melchior (2000) showed students were less likely to engage in behaviors that led to pregnancy or arrest. These behaviors were indicated both during and after the student participation in service learning. O’Donnell, O’Donnell, and Stueve (2001) concluded that adolescents engaged in early sexual activity were at high risk for negative health outcomes. They showed that middle school students who participated in service learning in conjunction with a structured health curriculum were much less likely to engage in unprotected sexual activity or violent behavior (O’Donnell, O’Donnell, & Stueve, 2001).

Further, in an analysis of over 250 prevention program evaluations, participation in service learning appeared to have the strongest influence in reducing teen pregnancy rates compared to other interventions (Melaville et al., 2006). This was attributed to the development of a positive personal relationship and a sense of increased autonomy and empowerment that helped the students avoid risky behavior.

One of the strongest findings in the research literature on service learning and student attitude was that of student sensitivity and acceptance of cultural diversity (Billig, 2000). When the student relationship involved reciprocity with the community member, the acceptance of varying cultures was even stronger. That is, if the student was engaged in a jointly, productive activity with a community member there would be a positive increase in attitude.

Service Learning Impact on Civic and Social Responsibility

There is a growing trend among youth in the United States to feel politically disengaged. A national survey of youth ages 15-24 revealed that 57% agree with the statement that, “You can’t trust politicians because most are dishonest” (Kahne & Westheimer, 2002). This statement has even more significance when viewed alongside the long-term decline in youth political engagement. Educators and policy makers are looking for ways to promote
student participation in political and civic affairs. A common strategy has been to give students the opportunity to make a difference in their communities. Research shows a connection between a student sense of efficacy, and the ability to make a difference, and their level of civic participation (Kahe & Westheimer). Service learning provides a needed connection that will give the student a sense of civic responsibility.

A California study shows that students involved in service learning felt more aware of community needs and felt they could make a difference in those needs. The students also reflected on their commitment and desire to stay involved in service later in life (Billig, 2000). In support of the California study, Hodgkinson and Weitzman (1992) and Degelman (1999) also found that a student participating in volunteer work in childhood was more likely to continue volunteer activities in teenage years.

Many educators believe that civic responsibility will best take place when three elements are combined: community service, learning outcomes, and civic education (Degelman, 1999). Quality and effective service learning occurs when all three come together. Active Citizenship Today (ACT) was developed to foster civic responsibility by teaching students how to participate effectively in a democracy (Degelman, 1999). ACT fulfills this by linking the study of civics with active community involvement and service. The benefits of ACT are that students learn about the processes most effective in improving community conditions and the positive attitude of the value of their own lifelong service for the common good (Degelman, 1999). ACT has been successful in showing that greater civic responsibility occurs through service learning.

Another study showing gains in student civic awareness took place in the Colorado Learn and Serve program. This study evaluated 761 students in thirty-five classrooms. Half of the students participated in service learning and the other half did not. The students engaged in service learning showed statistically significant increases in connection to community and civic responsibility compared to those not participating in service learning ( Melaville et al., 2006).

Problems Associated with Service Learning

Service learning offers extensive benefits in academic learning as well as positive influences in student attitude and civic responsibility. There are problems, however, that need to be addressed. Service learning often takes a back seat in education reform because it is not implemented systemically. Service learning is often the desire of an individual teacher or a group of teachers who create wonderful projects that are disjointed from the larger improvement projects pursued by their school or district (Degelman, 1999). Conversely, the school may become involved in a single fundraiser or activity that supports a good cause. Both situations are beneficial, but become disjointed and fragmented in their singularity.

Other problems associated with service learning are that the “learning” benefits the students, but the “service” does not always benefit the community. At times the service is not viewed as beneficial to the community (Levison, 1994). Although the students are in the community, they are not contributing. Conversely, some opponents see the students as being abused with forced service that becomes cheap or free labor to nonprofit organizations (Levison, 1994).

Another problem with service learning is the burden on teachers and administrators with logistics, such as liability, logging hours, and transportation. Some parents also perceive service learning as taking time away from more fundamental learning such as reading or mathematics (Loupe, 2000).

Service learning has become more mainstream in the school curriculum in the past decade. Questions may still arise and studies conducted, but the overall view is service and learning coupled together will provide a richer learning experience.

Conclusion

Service learning is based on a premise that youth can be capable, productive, and essential contributors in their communities (Wade, 2000). Through implementation of service learning programs, students come to believe that they can be depended on and that their contributions can make a valuable difference. The rise in service learning participatory numbers indicates that the activity is expanding (Billig, 2000). Although many would agree that service learning is still in its infancy, the sources previously cited show the effects on academic performance, student attitudes, school-wide measures, and a sense of civic responsibility in the student.

Service learning has shown positive gains toward students’ academic performance as well as standards-based education. Studies of junior high and high school students have shown that participants in service learning had higher grade-point averages upon completing their experience (Williams, 1991). Linking academic performance to service learning occupied many early studies, but a correlation between service learning and standards-based education has also been researched. Several studies
have indicated that the standards-based performance that is sought by today’s educators has a moderate to strong positive gain (Billig, 2000). Service learning enhances the relevancy of the curriculum to the individual student, allowing the student to take responsibility for their own learning (Wade, 2000).

Service learning has also demonstrated positive gains in school wide measures such as attendance and dropout rates. The impact has been greatest on at-risk and high-risk students (Degelman, 1999). The resiliency that at-risk students gain through service learning activities has been found to be a powerful dropout prevention tool (Duckenfield & Swanson, 1992). The practical, real-world experience that is fundamental to service learning programs provides a necessary aid to school-wide issues.

Service learning also reflects positive gains in student attitude. Students show an increase in self-confidence when engaged in service learning (Conrad & Hedin, 1982). An involvement in service learning may reduce levels of alienation and deviant behavior, but only through the continued involvement with a community project (Calabrese & Schumer, 1986). Studies have also shown an increase in student personal and social responsibility as related to their involvement in service learning (Melchior, 2000). One of the strongest findings on attitude was that of student sensitivity and acceptance of cultural diversity (Billig, 2000).

Service learning can also provide a needed connection that allows the student to feel a sense of civic responsibility. After engagement in service learning, students reflected on their commitment and desire to stay involved in service later in life (Billig, 2000). Students participating in volunteer work in childhood are more likely to continue volunteer activities in teenage years (Degelman, 1999). Students engaged in service learning showed statistically significant increases in connection to community and civic responsibility compared to those not participating in service learning (Melaville et al., 2006).

Service learning offers extensive benefits in academic learning as well as positive influences in student attitude and civic responsibility. Researchers currently know the most about the effects of service-learning on students, a little less about service learning’s effect on teachers, less still about its effect on schools, and virtually nothing about the effects of students’ service learning efforts on communities (Billig, 2003). Service learning often takes a back seat in education reform because it is not implemented systemically (Degelman, 1999).

Recommendations for Further Research

Service learning has been met with an astounding amount of anecdotal success. Given the prevalence of service learning in the K-12 schools it is somewhat surprising to see so little quantitative research. The majority of published studies conducted on service learning are qualitative research studies, such as case studies and narrative research, rather than statistical analysis (Billig, 2003). Qualitative research can lead to many schools embracing a service learning program, but limits the ability to make generalizations about the impacts that service learning has on students. A recommendation is for more rigorous, replicable research in this field, particularly in the elementary grades (Billig, 2003). With these studies, researchers will need to also further evaluate the definitions, methodology, and interpretation of results.

This paper also recommends that teachers be included in research studies. First, teachers can provide insight into the situational variables that are encountered in service learning. McCutcheon and Jung (1990) argued that teacher research could be based in different epistemologies. These include informal, such as theories about students’ learning constructed out of practical experiences, and formal epistemologies (McCutcheon & Jung, 1990). As teachers conduct research on service learning, they will be better prepared to use and understand this approach to learning. The teacher who can realize the vast benefits of service learning is more likely to introduce the program in the classroom. Teacher research can bridge the gap between service learning theory and implementation of practice. In addition, as teachers add to the knowledge base on service learning their voices and concerns will be heard.

Recommendations for Teacher Implementation

One critical factor in the continuation and sustaining of service learning is the need to demonstrate that service learning is a successful teaching strategy. Research needs to continue to show the positive effects on students from service learning as well as the positive gains for communities (Eyler, Giles, & Schmiede, 1996). In order for service learning to be seen as a viable teaching strategy, the programs will need to fit into the existing public school system and to attempt to transform them. The schools that have adapted to a more authentic approach to learning and use real-world problems and projects in exploration of student-relevant themes will have an easier time incorporating service learning. More traditional schools will be challenged in the incorporation of
service learning to fit the school’s programs. All schools would benefit from employing new teachers who have experienced service learning training as part of their pre-service teacher preparation program as well as offering service learning training to current teachers.

The research question behind service learning appears to be rather straightforward: either service learning meets the learning objectives or it does not. What is being measured, however, may vary greatly. In traditional pedagogy, outcomes are measured by standardized tests such as the SAT and ACT. These tests do not measure how the aptitude is developed, but rather the capacity of the individual student’s aptitude at a given time (Conrad & Hedin, 1982). There is no value associated with the learning process, only the outcomes. Conversely, experiential learning emphasizes the process of learning. There are few accepted standards for measuring this process of education. Educators generally have less confidence in measuring the process of acquiring knowledge rather than in the knowledge acquired. As teachers implement service learning the focus should be on measures such as academic performance, student attitude, and civic responsibility. With this emphasis educators will best be able to answer the question as to whether service learning meets the objectives established.

This paper also recommends that teachers focus on depicting service learning as a pedagogy. As a pedagogy, service learning becomes the education that is grounded in experience as a basis for learning and on a reflection that is designed to enable learning to happen. Zlotkowski (1999) described service learning as a teaching strategy that uses community service to teach students about the academic curriculum. An experiential pedagogy like service learning demands an interpretive analysis of learning. This recommendation is to encourage teachers to incorporate service learning in every-day curriculum, rather than a once-a-year activity.

The future of service learning in the public school system has many challenges. Advocates of service learning must continue to promote the positive gains to students, communities, and a democratic society. Service learning is an opportunity for students to act and reflect on the greater good they can offer to a changing world. The implementation of service learning can be a powerful, life changing activity for students, teachers, and communities.

References


Technology in the Classroom: 
An Academic and Behavioral Intervention for Students with 
Attention-Deficit Hyperactivity Disorder 

by Danielle Beamish

This paper discusses the effectiveness of technology in improving the academic and behavioral performance of students with ADHD. Under current federal educational laws, access to technology is required and recommended for children with disabilities. Currently, the most common treatment implemented in the United States to control the symptoms of ADHD is psychostimulant medication. However, many parents and professionals disagree with the usage of these drugs. Research indicates that technology can be a successful alternative that supports academic growth of students with ADHD. This review presents the research on technology in two categories: personal data assistants (PDAs) and computer assisted instruction (CAI). Although gaps in the literature exist, there are few who object to the effectiveness of technology.

Introduction

The American Psychiatric Association (1994) indicates that children with Attention Deficit Hyperactivity Disorder (ADHD) exhibit chronic symptoms of inattention, hyperactivity, and impulsive behaviors. Studies have shown that these symptoms make it difficult for children to be successful in school and on standardized tests. In 1991, widespread recognition of the academic problems facing children with ADHD eventually led to the official acknowledgement of ADHD as a condition that should be codified within federal laws. Many children diagnosed with ADHD qualify for educational services under the "Other Health Impairment" category provided in the Individuals with Disabilities Education Improvement Act of 2004 (IDEA). The legal definition of "Other Health Impairment" means "having limited strength, vitality, or alertness, including heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that . . . is due to chronic or acute health problems such as ... attention deficit disorder or attention deficit hyperactivity disorder" (Individuals with Disabilities Education Improvement Act, §300.8). When ADHD becomes a chronic problem that interferes with academic performance many children with the disorder qualify for educational assistance and accommodations. IDEA 2004 defines accommodations as shortened assignments, note takers, preferential seating, oral or alternative testing, and/or assistive technology.

Many children in the United States are treated with psychostimulant medications, such as Ritalin. The American Medical Association reports that these drugs overwhelmingly decrease primary symptoms of hyperactivity, impulsivity, and inattentiveness, which research has shown to improve classroom behavior and academic performance (Brown, 2000). However, the American Psychiatric Association (2000) has stated the most effective intervention for all children with ADHD is a multi-model approach. Furthermore, medications do not work for all children with ADHD and in fact many people reject the widespread and long-term usage of psychostimulant medications on children (DuPaul & Stoner, 2003; MicroNutra Health, 2007; United Nations, 1996; U.S. Food & Drug Administration, 2005).

Therefore, educators need to be informed of the many classroom interventions available to improve academic and behavioral issues in children with ADHD. These teaching strategies include self-monitoring, peer monitoring, instructional choice, instructional modification, and computer-assisted instruction. To cover all these topics would exceed the limits of this paper; therefore, this research review will focus on computer-assisted technology as a possible classroom intervention for children with ADHD.

Computer-assisted technology can be used by students with ADHD to help them organize their thoughts and activities. Specifically, PDA (personal data assistants) and CAI (computer-assisted instruction) are the two technologies covered in this review because they are two of the computer devices that have been tested on children with ADHD, which can be used within the inclusive classroom. All of the studies covered in this section of the review use computers to test academic performance and/or analyze the effects of computer usage on the symptomatic behaviors of children with ADHD. Much of the literature reviewed indicates that technology is an appropriate and useful tool for children with ADHD and allows students to increase academic success within the inclusive classroom. However, some research suggests that certain technologies are more effective than others.
Table 1. Characteristics of ADHD.

<table>
<thead>
<tr>
<th>Predominately inattentive type</th>
<th>Predominately hyperactive impulsive type</th>
</tr>
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<tbody>
<tr>
<td>Difficulty sustaining attention</td>
<td>Hand and feet fidgeting</td>
</tr>
<tr>
<td>Rarely able to following through on directions</td>
<td>Excessive talking (interrupting others)</td>
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<tr>
<td>Easily distracted</td>
<td>Difficulty engaging in quiet activities</td>
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<tr>
<td>Poor working memory</td>
<td>Problem with self control</td>
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<tr>
<td>Avoids tasks that require sustained mental effort</td>
<td>Difficulty waiting or taking turns</td>
</tr>
</tbody>
</table>


ADHD Children and their School Related Problems

Children with ADHD exhibit chronic symptoms of inattention, hyperactivity, and impulsive behaviors that are inappropriate for their age when compared with peers (American Psychiatric Association, 1994; American Psychiatric Association, 2000; Barkley, 1998). The Diagnostic and Statistical Manual of Mental Disorders lists 14 possible characteristics contributing to academic and behavioral problems of ADHD students in the classroom. Some of these characteristics are listed in Table 1.

Further, approximately 20-30% of children with ADHD are classified as “learning disabled” due to difficulties with specific academic skills (DuPaul & Stoner, 2003). Many times ADHD symptoms affect students’ abilities to be consistent with their performances (e.g., school work, chores) and the amount of time used to accomplish these tasks in both the school and home environment (Barkley, 2006). Brain imagining technology has provided some insight into ADHD behavior; magnetic resonance imaging (MRI) suggests that many children with ADHD have deficits in the brain, which contribute to difficulties in inhibition, planning, flexible shifting of actions, and working memory (Durston et al., 2004).

Many children with ADHD exhibit deficits in working memory that affect recall, long-term storage, and long-term memory (Barkley, 2006). Neuropsychological researchers are still determining the exact definition of what constitutes a higher learning function in the brain, and the research to date suggests two things. First, forgetfulness in children with ADHD does not appear to be a direct result of deficits in higher learning abilities and instead appears to be a deficit in memory strategies (Epstein, Willis, Connors, & Johnson, 2001). Second, attention and organizational difficulties are directly caused by deficits in the higher learning functions of the brain (Barkley, 2006; Brown, 2000). However, most experts agree that ADHD students experience high levels of inattentive behavior and organizational problems that interfere with academic capabilities. Specifically, memory, attention, and organization become problems for the ADHD child in the case of completing assignments (DuPaul & Stoner, 2003).

Longitudinal studies indicate that students with ADHD are at higher risk for grade retention, school suspension, dropping out, and substance abuse than their non-ADHD peers (Barkley, 2006). Barkley’s research specifically indicates that a third of ADHD students dropped out of high school, with only 5% completing university degrees as compared to over 40% of the control group subjects. Studies have indicated that approximately 3-7% of school age children in the United States have ADHD (American Psychiatric Association, 1994; Barkley, 1998). Since the average classroom contains 20 students, it is estimated that every classroom in the United States will have at least one child with ADHD (DuPaul & Stoner, 2003).

The most common treatment, implemented in the home and school setting, for ADHD children is psychostimulant medication, such as Ritalin (Barkley, 1998). The American Medical Association reports “medications have been unequivocally shown (i.e., by double blind, placebo-controlled studies) to reduce core symptoms of hyperactivity, impulsivity, and inattentiveness. They improve classroom behavior and academic performance; diminish oppositional and aggressive behaviors; promote increased interaction with teachers, family, and others; and increase participation in leisure time activities” (Brown, 2000, p. 5). Medication may be successful in helping many ADHD children in the classroom. However, this intervention should not be considered sufficient to improve the many behaviors that lead to academic difficulties. In fact, many experts oppose using drugs as an intervention (for example, see MicroNutra Health 2007). Concerns for the widespread and long term use of psychostimulant medication focus on the many negative side effects, which include growth inhibition, increase in blood pressure and heart rate, cardiac complications, drug addiction, and social withdrawal (DuPaul & Stoner, 2003; MicroNutra Health, 2007; United Nations, 1996; U.S. Food & Drug Administration, 2005).
Federal Laws Recognizing ADHD for Qualification of Special Educational Assistance

Over the past fifteen years, federal legislation has brought public attention to the fact that not all children are succeeding in the classroom. Two of the most current legislations are The Individuals with Disabilities Education Improvement Act of 2004 (IDEA) and No Child Left Behind of 2001, both of which advocate high accountability standards for states in educating students with disabilities (Congress, 2004; Yell, Katsiyannas, & Shiner, 2006). Children with ADHD are one group of students who are struggling to meet federal academic guidelines. As acknowledged in the 1991 memorandum from the Department of Education, “There is a growing awareness in the education community that attention deficit disorder (ADD) and attention deficit hyperactive disorder (ADHD) can result in significant learning problems for children with those conditions” (Davila, Williams, & MacDonald, 1991, p. 1). Because children with ADHD have academic struggles greater than their peers, federal accountability (requiring schools to prove all children are learning) poses a problem for children with ADHD. Studies suggest that, even with medication, “children with ADHD are likely to show performances that are lower than their classmates’ by as much as 10-30 standard score points on various standardized achievement tests, including tests of reading, spelling, math, and reading comprehension” (Barkley, 2006, p. 125).

To address these issues, children with ADHD needed to be identified under the laws. In 1991, the U.S. Department of Education issued a memorandum, which specified students with ADHD are eligible for services under Section 504 of the Rehabilitation Act of 1973 (Davila et al., 1991, p. 3). Section 504 is a civil rights statute prohibiting institutions who receive federal funds to discriminate on the basis of disability. Under Section 504, a person with a disability means any person with an impairment that "substantially limits one or more major life activities." Because “learning” is included in Section 504’s definition of “major life activities,” many students with ADHD qualify as persons with a disability. Schools are then required to provide them with a "free appropriate public education in the least restricted environment," which can include regular or special education and related services, depending upon each student's specific needs. Accommodations can be requested for a child with a disability that impacts his or her education. These accommodations might include shortened assignments, note takers, preferential seating, oral or alternative testing, and/or assistive technology (Individuals with Disabilities Educational Improvement Act of 2004, § 611).

Laws Related to Technology for Children with ADHD

Since the 1970s, professionals have considered technology to be a method of support for students with learning disabilities. Now that the definition of ADHD has been formally added into the federal laws, many of these students will qualify for technology assistance. According to the Technology-Related Assistance for Individuals with Disabilities Act (Public Law 100-407), assistive technology includes any item or piece of equipment that is used to increase, maintain, or improve the performance capabilities of individuals with disabilities. P. L. 100-407, ensures financial assistance to states in order to provide assistive technology services and to provide training to those who work with people who use assistive technology devices, such as teachers (Technology-related Assistance for Individuals with Disabilities Act, 1988, § 102). Further, IDEA (2004) also supports training and use of assistive technology devices for individuals who have, or work with, children with learning disabilities.

In order to provide an “appropriate” educational environment, within the regular classroom, many children with ADHD will qualify for an Individualized Education Plan (IEP). An IEP is a written statement that identifies a specific educational plan for each child with a disability. These plans are developed, reviewed, and revised by a team of professionals, parents, and the student. Covered under IDEA (P.L. 108-446 § 611) technology is being considered as an effective tool for expanding access to the general education curriculum.

Below are some common examples of assistive technology used by both students and teachers to aid the student in both life and academic activities (Source: AT Star, 2006).
- Print or picture schedule (PDA)
- Low tech aids to find materials (e.g. index tabs, color coded folders)
- Highlight text (e.g. markers, highlight tape, ruler, etc.)
- Recorded material (books on tape, taped lectures with number coded index, etc.)
- Voice output reminders for assignments, steps of task, etc. (PDA)
- Electronic organizers (PDA)
- Pagers and electronic reminders (PDA)
- Single word scanners Hand-held scanners
- Software for concept development and manipulation of objects (CAI)
- Software for outlining and organization of ideas (CAI)
- Palm computers (PDA)

Table 2.

<table>
<thead>
<tr>
<th>Author</th>
<th>Participants</th>
<th>Methodologies</th>
<th>Dependant Measures</th>
<th>Reported Outcomes</th>
</tr>
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<tbody>
<tr>
<td>Currie, Lee, &amp; Scheeler (2005)</td>
<td>4 males-all on med. ages 12.7, 12.8, 14.7, 13.9 (2 in 6th grade, 2 in 7th) 17 general ed. Teachers (4 math, 4 language arts, 4 science, 4 social studies, 1 foreign language teacher)</td>
<td>To form a baseline each student was given a paper journal to record homework. Then each student was given a personal data assistant (PDA) to record assignments. Teachers monitored use and homework completion.</td>
<td>Homework completion was defined as 80% completed &amp; handed in on due date. Social validity info. Was collected using a %-point Likert-type survey for both teachers and students. Inter-rater agreement data was collected during 20% of baseline &amp; intervention sessions for all participants.</td>
<td>With the use of a PDA, 3 of the 4 students increased in homework completion Social validity: students enjoyed the use of a PDA, they felt the PDA was helpful. Teachers: felt PDAs were easy to use and helped w/student organization, however, the PDAs did not improve the students quality of work.</td>
</tr>
<tr>
<td>Epstein, Willis, Conners, &amp; Johnson (2001)</td>
<td>Single case study North Carolina, suburb, middle class, male, Caucasian, age 10, 4th grade, on medication Windows compatible computer software package (RxMinder). 10 reminder prompts &amp; rewards (determined by student, parents, &amp; teacher) set to prompter</td>
<td>Descriptive measures: Diagnostic Interview Schedule for Children for Parents (DISC-P), (CPRS-R), (CTRS-R), &amp; (APRS) Outcome measures: McSKAMP rating scale</td>
<td>Intervention was effective in improving memory, which led to completing more tasks. More effective in school than at home. The device did not affect overall ADHD symptoms. High customer rating.</td>
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</table>

The Effects of Technology on Academic and Behavior Performance Personal Data Assistant (PDA)

A Personal Data Assistant (PDA) is an electronic device that has the ability to aid its user in organization and remembering daily tasks. Both of the studies indicated in Table 2 show that PDAs improve the ability for children with ADHD to complete numerous tasks while also empowering these students by allowing them to complete tasks on their own. Epstein et al. (2001) examined the effects of using a PDA to improve completion of daily tasks, within both the school and home environment. The participant was Caucasian male, age 10, who lived in a middle class suburb of North Carolina, and who was diagnosed with and on medication for ADHD. To begin the study, a baseline for behavior and task completion was set, and then the study moved into a 34 day intervention period. During the intervention 10 reminder prompts and rewards (determined by the student, parents, and his teacher) were set to an electronic PDA that the participant carried with him throughout each day. Over the 34 days the participant received 311 prompts, of which he responded to 253. The conclusions of this study indicated that using a PDA, which prompted tasks, was effective in improving memory and led to the student completing more tasks. Another advantage to this device was its high customer rating. On a customer satisfaction scale of 7 the participant’s mother gave the device a mean rating of 6.3, and his teacher gave a mean rating of 5.2. Both the teacher and parent were encouraged by the change in the participant’s ability to complete tasks.
In a more recent study Currie, Lee, and Scheeler (2005) evaluated the effects of PDAs on the percentage of homework completed. Currie et al. (2005) stated that in order for ADHD students to succeed academically they need to find effective ways to organize assignments. Specifically stated was that homework creates a problem for children with ADHD because of their inability to stay organized and inconsistencies with staying on-task. Currie et al. (2005) tested four males, all on medication for ADHD. In the initial phase each student’s baseline was determined through observing their daily written homework journals. As the study moved into the intervention stage each student was given a PDA to record assignments. Throughout the study, participating teachers monitored their students’ use of the PDA and homework completion. The students’ homework was considered complete if 80% of the assignment was done and the assignment was handed in on the date it was due. Further, social validity information (customer satisfaction) was collected using a percent-point Likert-type survey for both teachers and students. The study indicated that three of the four students increased homework completion. Specifically, homework completion went up from a baseline of 47% to 90% during the intervention. Further, the social validity reports indicated that the students enjoyed using the PDA and they felt it was helpful in improving the quality of their work. Yet, the teachers’ scores indicated that the use of a PDA did not improve the students’ quality of work. They did feel, however, the PDAs were easy to use and that they helped the students maintain organization.

Bender and Bender (1996) suggest that when considering technology interventions for the classroom, low-tech is always advised as a first intervention (Bender & Bender, 1996). In both Epstein et al. (2001) and Currie et al. (2005), the low-tech device was a writing utensil and calendar journal. However, both studies provided evidence that low-tech is less effective than electronic PDAs for some students with ADHD. Although both studies represent a small sample size, a need for a high-tech electronic PDA was established.

**Computer Assisted Instruction (CAI)**

Technology is increasingly being recommended to help students with cognitive disabilities succeed academically in a challenging curriculum (Paige, Justesen, Lee, & Danielson, 2004). Having cognitive disabilities does not necessarily equate to low intelligence. Deficits in cognitive functioning make it hard for the ADHD child to succeed within the classroom. Students with ADHD have a difficult time sustaining attention and this limits their ability to access classroom curriculum. The use of computer assisted instruction (CAI) has been recommended for increasing the on-task behavior and academic capabilities of students with ADHD. It has been suggested that the instructional features of CAI allow students with ADHD to focus their attention on academic stimuli (Lillie, Hannum, & Stuck, 1998). The use of CAI can enhance how children learn by supporting fundamental characteristics of learning: active engagement, participation in groups, frequent interaction and feedback, and connections to real-world contexts (Roschelle, Pea, Hoadley, Gordin, & Means, 2000). Additionally, CAI as an inclusive classroom intervention can be used to target students’ strengths instead of weaknesses.

For example, many children with ADHD experience difficulties with handwriting and spelling, which can create extreme anxiety and negative attitudes towards written work. Bender and Bender (1996) report that word processing programs can alleviate the stress of “poor” writing skills by aiding the learner in writing his own stories. According to research done by Bender and Bender (1996), Kids Works Two is a computer program that allows students to work independently, at their own pace, and with ease. Kids Works Two has four activities: Story Writer, Story Illustrator, Story Player, and Icon Maker. All four activities work together to allow the student to create a story, design illustrations, and present his final project. Kids Works Two has several important features that are necessary to maximize the learning experience. Several of these features are large bold print (that the student can alter), automatic verbal feedback on misspelled words, and an options menu to hear a word or group of words read aloud (Bender & Bender, 1996).

Another example of a CAI intervention was studied by Clarfield and Stoner (2005), which examined the effects of the Internet based reading program, Headsprout, on the academic performance of students with ADHD. The participants for this study were three Caucasian males in kindergarten and first grade who were diagnosed with ADHD and considered at risk for reading difficulties by their teachers. Two dependent measures for reading and behavior were used to collect data for this study. Dynamic Indicators of Basic Early Literacy Skills (DIBELS) was used once a week to assess the oral reading skills of all three participants. In order to monitor behavior for statistical analysis, Behavior Observation of Students in Schools (BOSS) was used. BOSS is a form that assessed the frequency of
on and off-task behavior exhibited by participants during regular class lessons and during the computer intervention sessions, three days a week for 20–30 minutes. The data for this study indicated that the effects of CAI on oral reading fluency were improved for all three students. The mean words correct per minute for all three students was 25, which resulted in a difference of 15 from the baseline mean of 10. After analyzing the data from BOSS it was determined that CAI produced immediate increases in the rate of on-task behavior. Of the three participants one showed a 43% increase in attentive behaviors while working on the CAI and the other two showed increases of 21% and 22%. Overall, the research supported the hypothesis that Headsprout would work as an appropriate and effective intervention for beginning readers with ADHD.

As Table 3 indicates, CAI has been shown to increase active engagement time and decrease off-task behavior in children with ADHD. For example, Ota and DuPaul (2002) examined the academic and behavioral performance of three Caucasian male students in fourth–sixth grades with ADHD, while using a commercial software program with a game format (Math Blaster). The primary reason for this study was to extend the findings of Ford et al. (1993), who found that computer software programs with a game format, when compared with drill and practice software, decreased the non-attending behaviors of students with ADHD. To begin the study, a baseline for performance and behavior was set during teacher directed math sessions. Then each participant was assigned computer time in 20 minute sessions three to four days a week. Analyses were kept during both the computer-based and teacher directed math sessions. Conclusions found that off-task behavior decreased significantly for all three participants, varying from a mean of 13% immediate decrease to a mean of 34%. All three participants experienced an increase in active participation from a baseline of 81% to 98%. However, the concluding effects of CAI on the number of math problems correct per minute were only significantly different for two of the participants. Although a small sample size was used, Ota and DuPaul’s (2002) study provides statistically significant support for the idea that CAI improves off-task behavior and fosters more active engagement in students with ADHD.

More recently, Mautone, DuPaul, and Jitendra (2005) studied the effects of CAI on the math performance and classroom behavior of three students with ADHD. In an attempt to extend the findings of Ford (1993) and Ota and DuPaul (2002) Mautone et al. (2005) used the same Math Blasters program. In addition, the same dependent measures were used in this study. However, two significant changes were made. First, this study was conducted in each participant’s regular classroom setting. Second, the Rating Profiles (IRP-15) for teachers and (CIRP) for students were used in order to determine the intervention satisfaction of CAI. The conclusions were presented in three categories. First was the effect of CAI on answers correct per minute from baseline to intervention. In this category all three participants improved during CAI sessions, with effect sizes (ES) of 1.45, 1.72, and 1.15. The next section reviewed the effects of CAI on the participants’ level of active-engagement/on-task behavior. Again the data supported improvement in behavioral performance from baseline into CAI intervention, with ES of 1.73, 1.80, and 1.81. The third category to be evaluated was the teacher and student acceptability to the intervention. On an acceptability rating scale of 1 to 6 the ranging mean score was 5 to 5.9 for teachers. The three participants’ mean scores on a rating scale of 1 to 3, were 1.7, 2.3, and 3. In conclusion, after reviewing these three studies, Math Blasters appears to show statistically significant indications that some children with ADHD would academically benefit from the use of the program as a supplement to regular instruction.

Further, CAI studies have been done outside the United States. Solomonidou, Garagouni-Areou, and Zafropoulou (2004) examined academic and behavioral performance of 13 Greek students, nine with ADHD and four without, while using computers. To begin the study the participants were split into two groups. The first group consisted of five students with ADHD symptoms, who all worked individually for six weeks. The second group had eight students who worked in sets of two, with each ADHD student working with an age and sex matched peer. Three commercial software programs, on history, geography, and math were used in the study and a fourth constructivist–type program on physics was developed specifically for this study by the University of Athens and Thessaly in Greece. Behavioral measurements were established on a three-point scale. These measurements were taken while the students participated in computer generated tasks that included reading, watching text/pictures, listening, solving problems/experiments, drawing, and writing. The most statistically significant finding was that when reading or listening to long texts non-ADHD students scored lower in off-task behavior than students with ADHD. ADHD students showed a mean average of 2.56, which is a standard deviation of 0.73 greater than their non-ADHD peers. Another important finding in this study was that when measured against their non-ADHD peers, students with ADHD displayed more inattentive, off-task,
### Table 3.
**Computer Assisted Instruction Studies and Outcomes.**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Participants</th>
<th>Methodologies</th>
<th>Dependent Measures</th>
<th>Reported Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mautone, DuPaul, &amp; Jitendra</td>
<td>3 case studies - evaluate math performance and on-task behavior using computer software</td>
<td>Basic math answer probes, Behavioral Observation of Students in Schools (BOSS), &amp; Intervention Rating Profile (IRP-15)</td>
<td>CAI as an intervention improved the math skills of all 3 participants, immediate improvement in behavior was seen in all 3</td>
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</tr>
<tr>
<td>Clarfield &amp; Stoner (2005)</td>
<td>3 Caucasian males, rural school, in MA., Ages 6-7</td>
<td>Internet-based program, Headsprout Reading Basics, observe academic effects and on task behavior, before &amp; throughout the study.</td>
<td>Reading- Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Oral Reading Fluency &amp; BOSS</td>
<td>All 3 students improved their reading fluency, immediate decreases in off-task behavior</td>
</tr>
<tr>
<td>Solomonidou Garagouni -Areou, &amp; Zafiropoulou (2004)</td>
<td>4 software programs, History, Geography, Math, and Physics. Video taped observations academic &amp; behavioral performance</td>
<td>598 measurements- 46 for each pupil (reading, watching text/pictures, listening, solving problems/experiments, drawing, writing)</td>
<td>Specific program characteristics were more helpful than others, when working with peers’ control of the computer was important to control ADHD behavior.</td>
<td></td>
</tr>
<tr>
<td>Ota &amp; DuPaul (2002)</td>
<td>3 male Caucasian 4th, 5th, &amp; 6th grades (all on medication previous to test) (placed in private school for LDs)</td>
<td>Examines effects of software with game format (as supplement to teacher instruction) to improve math performance</td>
<td>Math skill probes and BOSS, IRP-15</td>
<td>3 students active and passive engagement increased, off-task behavior decreased, digits correct increased, math problems correct per minute increased for 2 student</td>
</tr>
<tr>
<td>Ford, Poe, &amp; Cox (1993)</td>
<td>4 commercial software programs, 2 math &amp; 2 reading. To compare the effects of using various computer packages on the behaviors of ADHD kids.</td>
<td>Non-attending behaviors rated every 2 minutes using prepared checklist</td>
<td>Attention increased-game format with animated graphics and unlimited response time. More off-task behavior on reading and drill</td>
<td></td>
</tr>
<tr>
<td>Kleiman, Humphrey &amp; Lindsay (1981)</td>
<td>Comparison of math problems completed on a computer and in paper/pencil format</td>
<td>Accuracy, time spent, number of problems attempted, child preference</td>
<td>Only difference was the number of answers given on the computer exceeded paper/pencil. Strong preference for computer. No statistical measurements</td>
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</table>
disruptive behaviors when they were not in control of the computer tasks. However, when ADHD students were interacting with the computer, especially during the constructivist physics program, students were just as attentive and on-task as their non-ADHD peers.

**Conflicting Responses to the Research on Technology for Students with ADHD**

One major criticism of CAI is that it is too frequently restricted to drill and practice software (Blackhurst & Lahm, 2000). Solomonidou et al. (2004) and Ford et al. (1993) studies indicate that interactive software, which encourages critical thinking skills, is more effective than drill and practice games. However, as long as the drill and practice games contained a game format, significant improvement was made in the academic and behavioral performance of students with ADHD (Farrace-Di Zinno & Douglas, 2001; Houghton et al., 2004; Lillie et al., 1989).

Contrary to the positive effects of technology that others have reported, Xu, Reid and Steckelberg (2002) reported that after reviewing the empirical studies regarding the effects of technology on children with ADHD, the studies failed to provide longitudinal support for claims that suggest technology is an effective academic tool to use in the classroom. Further, the literature failed to provide effective classroom implementation strategies (Xu, Reid, & Steckelberg, 2002). Xu et al. (2002) believe that in order for teachers to fully recognize the wide range of technologies available to students with ADHD, more research is needed.

Barkley (2006) and the DSM-IV (1994) state that ADHD is a childhood disorder found in various ethnic and cultural groups. However, the easily accessible empirical research indicates that research including children of different racial, economic, and cultural backgrounds, as well as more participants who are female is needed. After reviewing the literature on the effects of technology on children with ADHD a lack of consideration for gender relevancy becomes apparent. The studies to date overwhelmingly focus on male children, between the ages of 6-14. Due to this gap in the literature, educators must be aware that technology based education has yet to show sufficient evidence of applicable use for females with ADHD. This gap in the literature may exist because boys are more likely to have ADHD than girls. Barkley (2006) reports that “the proportion of males versus females with ADHD averages a ratio of 6:1 most often cited for clinic-referred samples of children” (p. 108).

Although a great deal of research has been done studying the effects of technology on children with ADHD, there is little empirical support that is school based. The vast majority of these studies were conducted in controlled settings, such as hospitals and university clinics. Therefore, there is still a great need for empirical research within the actual classroom setting.

**Conclusion**

Approximately six million children have been diagnosed with ADHD in the United States (American Psychiatric Association, 2000). The use of psychostimulant drugs, such as Ritalin, is a common treatment for ADHD in the United States. However, psychostimulant drugs do not cure ADHD; they only control the symptoms on the day they are taken. Many times improvements in behavior lead people involved to believe that medication is all that is needed. Studies show that medications do help many children pay better attention and complete school work, although they do not increase knowledge or improve academic skills. The medications allow the child to use the skills he/she already has. Therefore, “a multi-model approach that includes behavioral therapy, emotional counseling, classroom interventions/accommodations and practical support are necessary to help ADHD children cope with everyday problems and feel better about themselves” (American Psychiatric Association, 2000, p. 1).

This literature review has identified technology as an appropriate and helpful intervention for some children with ADHD. The studies that examined technology conclude that PDAs and certain forms of CAI allow students access to and success within a challenging curriculum. Technology can have a positive impact on student learning because it provides ADHD students with specific learning opportunities that improve academic success. These essential opportunities are active engagement, participation in groups, frequent interaction and feedback, and connections to real-world contexts.

Research with students has indicated that when used in conjunction with regular instruction, technology can have a positive impact on students’ abilities to improve academically. For example, studies have shown that computerized PDAs aid the student in memory strategies, which in turn allow him/her to complete assignments on a regular basis. Further, the CAI spelling and writing programs reviewed present technology as a way to focus on students’ strengths instead of weaknesses. Specifically, the program Kid Works II allowed students to write at ease without fear of criticism for “poor” handwriting and spelling. Another conclusion of CAI was the effectiveness of a reading program
called Headsprout. Through the use of DIBELS assessments it was determined that Headsprout has the ability to improve oral reading fluency.

Some studies have shown that technology can increase on-task behavior, which leads to better scores and higher retention in memory. However, the research suggested that certain technologies are more effective than others. For example, computer programs that use a drill and practice method are less effective than programs designed in a game format. While drill and practice slightly improved on-task behavior, studies indicated that academic capabilities did not increase. In all the math related programs, math scores only improved when the program was in a game format. All of the studies reviewed had intervention periods that were one month or less. In several studies researchers felt strongly that if intervention periods had been longer academic performance would have increased; however, no longitudinal studies have been published to date. Overall, this review concludes that there are few dissenters on the effectiveness of technology.

Recommendations for Practice

The majority of children with ADHD struggle to meet academic and behavioral expectations in many of today’s classrooms. This is why it is important for educators to be aware of the many classroom accommodations that can help their students with ADHD succeed. Technology is increasingly being recommended to help students with cognitive disabilities achieve in a challenging curriculum (Paige et al., 2004). Technology has been shown to be a tool that teachers can utilize, which can improve their students’ academic capabilities. It has been suggested that the instructional features of CAI allow students with ADHD to focus their attention on academic stimuli (Lillie et al., 1989). For example, certain features provided in computer assisted instruction (CAI) can improve students’ on-task behavior. This in turn allows them to focus on improving or acquiring new academic skills more frequently than during paper and pencil assignments. When measured against their non-ADHD peers, students with ADHD displayed more inattentive, off-task, disruptive behaviors when they were not in control or directly interacting with the computer. While drill and practice slightly improved on-task behavior, studies indicated that academic capabilities did not increase. However, Solomonidou, et al. (2004) found that when students with ADHD interacted with the computer during a constructivist physics program students were just as attentive and academically comparable to their non-ADHD peers.

Poor memory strategies and organization are a problem for many children with ADHD, which interferes with academic success. The use of a computerized PDA for keeping a record of assignments and reminders has been shown to be more effective than paper calendars. PDAs have built in prompts that signal the user and remind them to complete a task, take medication, and many other life activities. Enabling a child to complete tasks without the constant reminder from an adult can empower the child and build self-esteem. Furthermore, an increase in completed assignments will likely lead to improved grades and academic skills. Nevertheless, it would be left to the students’ IEP team to advocate the need for a PDA device. In late 2006, on amazon.com the price of a PDA ranged from approximately 200 to 1000 dollars. Although current laws mandate that public schools fund appropriate technological tools for students with learning disabilities, schools work within a budget and the cost of a PDA may be difficult for schools to obtain.

When used in conjunction with regular instruction, technology can have a positive impact on students’ abilities to improve academically. Although technology was shown to be an effective method that provides academic and behavioral support, teachers need to research classroom implementation strategies that have been shown to be effective. In order for teachers to make informed decisions that will allow them to successfully use technology in their classroom, continuing professional development and technology conferences are recommended.

Technology as an assistive tool can enhance how children learn by supporting four fundamental characteristics of learning: active engagement, participation in groups, frequent interaction and feedback, and connections to real-world contexts. However, there are several elements to consider before implementing technology to support the achievement of students with ADHD:

- It is recommended to select low-tech applications whenever possible.
- Always monitor the use and effectiveness of technology for each student.
- Technology needs to be in the classroom and accessible to the student.
- If possible, have the same equipment used in the students’ classrooms available in the students’ homes to promote continuity of learning.
- Offer training and technological support for students, teachers, and parents; as encouraged and funded by The Technology
Related Assistance for Individuals with Disabilities Act and IDEA 2004.

- Integrate the use of technology into lessons in a purposeful and meaningful way.
- Design CAI around activities that encourage both group interactions and independent learning.
- Select highly interactive constructivist-type software programs.
- Avoid programs that are drill and practice, unless they are presented in a game format.
- No two children are alike, therefore their technology needs will be different.
- Utilize and research the available technology resources. (Council for Exceptional Children is one example of a resource that educators can use as is the website http://www.ldonline.org/educators/strategies/technology)

Overall, when considering technology for students with ADHD, the most important questions for educators to ask are: what are my students’ needs and what type of interventions would best fit those needs? The potential of technology to improve and enhance the lives of individual students is almost unlimited. With the help of current federal laws, technology may provide more students with the opportunity to maximize their learning in a challenging curriculum.

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The Role of Intrinsic Motivation in Special Education

by Justin Becker

Current research on motivation suggests that a complex, and ongoing, dialogue exists between an individual and her learning environment. Decisions made and behavior expressed are determined in part by the extent to which that individual’s psychological needs are being met. This paper briefly explores special education’s historical tendency toward behaviorism and then includes an examination of intrinsic motivation research, specifically Self-Determination Theory (SDT) and Cognitive Evaluation Theory (CET). The findings of this review suggest that educators in special education settings can encourage the development of internally motivated behavior for their students by establishing autonomy-supportive learning environments and interpersonal relationships.

Introduction

“Praise, like penicillin, must not be administered haphazardly.
There are rules and cautions that govern the handling of potent medicines –
Rules about timing and dosage, cautions about possible allergic reactions.
There are similar regulations about the administration of emotional medicine.”
- H. Ginot, 1965

To express approval for a job well done has generally been accepted as a useful form of encouragement. For many educators, praise is assumed to enhance a student’s self-esteem, provide feedback about a student’s work, and reinforce effective learning behaviors (Brophy, 1981; Dev, 1997; Kohn, 1993). Praise is also assumed to address a key psychological element contributing to participation and success in the classroom – student motivation. What motivates students in their learning endeavors? Is motivation something that can be taught, or encouraged? This paper discusses these questions by exploring the interaction between external rewards, such as praise, and intrinsic motivation.

For the purposes of this paper, extrinsic motivation refers to external rewards that are offered as reinforcement for participation in or completion of an activity. With student learning in mind, extrinsic motivators take the forms of “prizes, grades, test scores, vocations, college,” as well as praise (Ginsberg, 2005, p. 220). Intrinsic motivation refers to engaging in an activity out of curiosity or enjoyment. This type of motivation is characterized by students’ involvement in an activity for the purpose of constructing meaning from their experiences. Recent brain research suggests that students are more engaged when the mind succeeds in overcoming developmentally appropriate challenges (Jensen, 2005). Furthermore, neurological effects of external rewards on the brain’s function serve as a substitute for the natural, and pleasurable, release of dopamine (Jensen, 2005). For educators, encouraging the development of internal sources of motivation may result in a community of more highly engaged, internally motivated learners.

Public schools in the United States continue to reflect an ever-increasing diversity of students in terms of culture, language, and ability. Ginsberg (2005) suggests that “across cultural groups, all students are motivated, even when they are not motivated to learn what the teacher has to offer” (p. 219). An understanding of motivation as common to all students has powerful implications for educators, including those whose students may lack the necessary communication skills to convey their emotions about and needs for intrinsically motivating experiences. Lepper (2005) conducted a study exploring the relationship between motivation and student performance in class and on standardized tests, as measured by grades and test scores. Though the authors found a positive correlation between intrinsic motivation and school achievement, the results suggested a decrease in intrinsically motivated learning behavior for older students. For current and future educators, student motivation and its relation to academic achievement is a complex and perennial issue, highly relevant within both the focused context of students’ classroom success and the broader context of promoting lifelong learning.

Though much of the research exploring the interplay of external rewards and intrinsic motivation has focused on students in general education classrooms, this paper also explores the interaction within a special education setting. In other words, how has research on the potential effects of external rewards, specifically praise, on general education students informed classroom strategies regarding students with learning disabilities, emotional handicaps, or those labeled at-risk?

Students who receive special education services represent a diversity of learning styles and cognitive and physical abilities. Special education services are also varied, reflecting a range of teaching strategies
and classroom environments, as well as an assortment of developmentally appropriate materials. In this paper, learning disabled (LD) refers to a label assigned to students when discrepancies are found between actual levels of achievement and expected levels of achievement based on IQ tests. Students labeled emotionally handicapped (EH) reflect an array of characteristics, from consistent outbursts to consistent withdrawal. An underlying, and defining, trait of these labels is that the behavior or academic discrepancy negatively affects school performance. All students receiving special education services must have an individualized education program (IEP), a document including information pertinent to the academic, social, and behavioral success of the student. Educators in the special education field, then, are tasked with the academic, social, or behavioral development of each student, according to the IEP, while aligning that development with school, district, and state standards. How, then, does motivation influence these learning contexts? Why should special educators be interested in how their students are motivated?

This paper initially explores common practices in special education that reflect a commitment to external rewards. What follows is a discussion of the theoretical foundations of intrinsic motivation research that will highlight basic psychological needs all humans seek to fulfill. Finally, this paper will look at recent trends in motivation research as applied to special education, pointing out best practices that enhance students’ feelings of intrinsically motivated learning behavior.

The following section will explore the behaviorist roots of special education, emphasizing the apparent ubiquity of extrinsic rewards. The section will highlight a theoretical transition that began to explain behavior and motivation as satisfying basic psychological needs, rather than behavior as purely learned response to reinforcement.

**Literature Review**

**Motivating Students: An Historical Perspective**

“Man is an animal different from other animals only in the types of behavior he displays.”

- J. B. Watson, 1930

Special education classrooms largely rely on a pattern of reinforcing acceptable or appropriate behavior through the use of verbal feedback and tangible rewards, such as awards, tokens, or money (Burden, 1995; Cohen, 1986; Riley, 1997; Vaughn, Bos, & Schumm, 2000; Witzel & Mercer, 2003). The use of reinforcements to encourage specific behaviors rests historically on the work of operant psychologist B.F. Skinner (1953), whose research suggested that actions will be repeated when they are subsequently rewarded. This perspective of human behavior is manifest in classrooms that promote time-on-task behavior in order to encourage academic achievement.

Students diagnosed with learning disorders face an assumption that academic achievement will result only after addressing behavior problems (Adelman, 1978; Witzel & Mercer, 2003). Reinforcement theory, however, fails to adequately address behavior seemingly driven by internal forces such as thoughts and feelings (Adelman, 1978; Deci & Ryan, 1985; Kohn, 1993). Research into how these internal processes influence human behavior began to explore a broader conception of motivation, one that included intrinsic psychological needs such as competency and self-determination (Deci & Ryan, 1985).

**Intrinsic Motivation**

“... there is more than adequate justification for avoiding the use of incentives to control people’s behavior, particularly in a school setting.”

- A. Kohn, 1993

Supplementing the explanation of behavior as a combination of physiological drives and environmental stimuli, White (1959) proposed that an innate need exists in all organisms; that is, to act on their environment. In contrast to mechanistic theories that viewed behavior as solely reaction to external stimuli, this emerging view incorporated intrinsic motivation into the explanation of why humans behave as they do (Adelman, 1978; Deci & Ryan, 1985). From this perspective, as the environment stimulates a spectrum of responses or behaviors, the individual actively seeks challenge. This action is driven by intrinsic motivation, which Deci (1975) suggests is the result of a person needing to feel competent and self-determining. Moreover, satisfying the psychological need of relatedness also enhances an individual’s ability to feel intrinsically motivated (Deci, Koestner, & Ryan, 1999; Ryan & Powelson, 1991). That is, the level of intrinsic motivation expressed by people is affected by their “desire to be related to others, to feel part of a family, group, or social order” (Vansteenkiste, Lens, & Deci, 2006, p. 21).

Deci and Ryan (1985) posit, then, that intrinsic motivation is not simply an innate energy source guiding human behavior in the absence of environmental or social reinforcements, but rather what drives the individual to seek challenges suited to her abilities, to choose if and how to address those
challenges, and to feel effective in overcoming those challenges. In terms of development and learning, intrinsic motivation provokes a quest for disequilibrium or incongruity; mastering, or adapting to, these experiences contributes to a feeling of competence (Deci & Ryan, 1985; Singer & Revenson, 1996). Describing human motivation and behavior in terms of autonomy, competence, and relatedness, self-determination theory both challenges and informs the behaviorist roots of special education.

Self-Determination Theory (SDT)

deCharms (1976) explains the need for self-determination through the Origin/Pawn concept; an Origin feels she has the skills and desire to act upon the world, whereas a Pawn feels powerless to do so. These feelings are also contextual in that a person will unconsciously take the role of Origin and/or Pawn depending on the situation. For example, a student who takes responsibility for turning in late work may be exhibiting Origin behavior, yet remains a Pawn if she cannot explain why turning the work in is important. Within the classroom, the concept is complicated additionally by the attitude of the teacher and the relationship between the teacher and the student. In favor of encouraging origin-type behavior, deCharms (1976) argues that “if the teacher can develop commitment and motivation, the development of necessary skills and knowledge will follow smoothly as the child demands them” (p. 15). In melding intellectual development with the development of intrinsic motivation, this prompted Edward Deci’s research into the intricate relationship between motivation and behavior, which he labeled SDT.

This research pointed toward other forces at play within intrinsic motivation. Deci and Ryan (1985), along with deCharms’ (1976) description of one’s need to feel competent in acting upon the environment, suggested that individuals also need to be self-determining. That is, an individual needs to feel both in control of her actions as well as free to choose to act in the first place. Ryan (1982) later supplemented this early conception of SDT with a further psychological need called relatedness. This theory takes an organismic perspective that assumes all humans “have an innate and natural tendency toward assimilating new information, exploring novel terrain, and internalizing and integrating ambient practices and values” (Ryan & Powelson, 1991, p. 51). That is, beyond the psychological need to feel cognitively challenged, humans also need interpersonal relationships supportive of autonomy.

In a subsequent study examining levels of intrinsic motivation within the context of special education, students labeled as LD or EH answered questionnaires exploring students’ self-perceptions regarding competence and autonomy (Deci, Hodges, Pierson, & Tommasone, 1992). Because programs addressing the needs of students in special education have emphasized reinforcements as a central feature, the authors questioned “whether adults may be failing to provide the right kind of support for the students to initiate and sustain their own behavior and learning” (Deci, Hodges, Pierson, & Tommasone, 1992, p. 457). For these students, the authors predicted greater levels of achievement and adjustment under classroom and home conditions supportive of autonomy and competence as defined by SDT. The results suggested that elementary students regarded the home context as most influential, while junior and high school students focused more strongly on the classroom context. The authors’ findings distinguished between controlling and structured learning environments. This distinction draws upon SDT, describing structure as informational and control as pressuring or coercive (Deci, Hodges, Pierson, & Tommasone, 1992).

Deci et al.’s (1992) research called primarily on the perspective and predictions of self-determination theory, exploring those situations that might enhance intrinsic motivation for students in special education. The suggested findings of the study added to the understanding that classroom settings and teacher practices can either enhance or undermine internal behavioral controls. From the view of cognitive evaluation theory, rewards and praise perceived as controlling, in general, are found to undermine intrinsic motivation.

Cognitive Evaluation Theory (CET)

CET predicted that a social context in which the student felt competent in her actions and, further, felt her behavior to be self-determined would enhance levels of intrinsic motivation—in other words, this form of motivation “would flourish if circumstances permit” (Deci & Ryan, 2000, p. 70). An early study by Deci involved college students and a manipulative puzzle called the SOMA Cube (1971; see also Deci, 1972). One group of participants was offered money for each puzzle successfully completed, whereas a control group was simply told to complete as many puzzles as possible. Subsequently, all the participants were observed during a free-time period wherein they could continue to work on the puzzles or do some other activity. The findings that contingent rewards have a detrimental effect on intrinsic motivation showed that the paid students spent less time on the puzzle during a free-choice period than their unpaid peers. Further research into the effect of expected contingent rewards on intrinsic
motivation supported these findings (Kruglanski, Friedman, & Zeevi, 1971; Lepper, Greene, & Nesbitt, 1973).

Early critiques of these initial studies pointed out methodological inadequacies such as the lack of longitudinal research and their questionable applicability to actual situations (Bates, 1979). However, CET stipulated an essential caveat regarding rewards that carries strong implications for their use in special education settings. This qualification looks at whether the reward is perceived as controlling or informational. If the information carried by the reward supports an individual’s feeling of competence in an activity, then the reward is likely to enhance intrinsic motivation. An informational reward could follow as a natural consequence of the effort involved in carrying out a project. For example, after delivering a PowerPoint presentation about the daily realities of living with Cerebral Palsy to her general education peers, a student walks out of the classroom clarifying further questions with another student. This interaction is characteristic of an informational “reward” in that the time and effort put into the presentation resulted in students wanting to know more about the topic. The student with Cerebral Palsy becomes the resident “expert” on the topic, encouraging her feelings of competence and, hopefully, provoking higher levels of intrinsic motivation to help her peers understand her experiences. However, if the salience of the reward carries controlling connotations, then CET predicts an undermining of an individual’s feeling of autonomy, with a subsequent decline in intrinsically motivated behavior (Ryan & Deci, 2000). Using the above example, should the student with Cerebral Palsy focus solely on the requirement of performing A to get B, or creating an assigned presentation in order to get the assigned grade, then the “reward,” or grade, becomes salient, undermining the student’s ability and willingness to interact with her peers, and thus her intrinsic motivation to understand her abilities in a positive light.

Ensuing studies followed the basic framework of CET, with the intention of exploring which rewards will undermine intrinsic motivation in static situations (Green & Lepper, 1974; Harackiewicz, 1979; Lepper, Greene, & Nesbitt, 1973). Lepper et al. (1973), using pre-school children as subjects and good-player awards as the reward, found that those students offered an award merely for engaging in a drawing task later spent less time with the drawing materials than the control no-reward group. Lee, Syrmik, and Hallschmid (1977) followed with a study involving developmentally delayed students, further supporting the predictions of CET and its application in special education. They reported similar results to studies with general education students – rewarding individuals for participating in interesting activities undermined intrinsic motivation as measured by time spent on that activity during a free-choice period. These studies supported CET’s prediction that expected tangible rewards tend to undermine intrinsic motivation. However, other studies took exception to these findings.

### Continued Support for Rewards

Summarizing a recent meta-analysis of the literature involving CET, Eisenberger and Cameron (1994) questioned the view that rewards tend to undermine intrinsic motivation and reasserted behavior theory and rewards as valid strategies for motivating individuals (Eisenberger & Cameron, 1996). Reviewing over 100 studies linking rewards and intrinsic motivation, the authors found “little evidence that reward reduces intrinsic task interest,” and repositioned elements of behavior theory as primary explanations for an assumed undermining of intrinsic motivation (Eisenberger & Cameron, 1996, p. 1162). One of these elements is satiation, where an individual’s lack of subsequent task interest is due to repeated performance of that task rather than to a lower level of intrinsic motivation. A second explanation is labeled negative contrast, and involves a temporary subsequent lack of interest caused by a sudden decrease in the frequency or quantity of a given reward (Dunham, 1968). In response, Deci et al. (1999) performed a subsequent meta-analysis in continued support of CET’s validity. Their findings supported CET’s prediction that tangible rewards do undermine intrinsic motivation, and reasserted the warning regarding the use of rewards as incentives in the classroom (Deci, Koestner, & Ryan, 1999; see also Deci, Koestner, & Ryan 2001). Though seemingly contradictory in their findings, both meta-analyses support the use of verbal rewards, or praise, in encouraging the development of intrinsic motivation (Cameron & Pierce, 1994; Deci, Koestner, & Ryan, 1999). However, whereas Cameron and Pierce (1996) found an overall enhancing effect of praise and positive feedback, Deci added that verbal rewards “can have a significant controlling aspect leading people to engage in behaviors specifically to gain praise” (2001, p. 3). In other words, the effects of praise on subsequent intrinsic motivation depend on the interpersonal context in which the praise is given.

CET predicts that when the context is perceived as controlling, the praise will detract from the autonomy of the individual, thus undermining intrinsic motivation. However, if the informational aspect of the feedback is more apparent, it will highlight the
individual’s competence and thus enhance intrinsic motivation.

The debate about the undermining effects of rewards on intrinsic motivation continued, with each side reinterpreting, disclaiming, and offering new explanations for its findings (Cameron, 2001; Deci, Koestner, & Ryan, 2001; Deci, Ryan, & Koestner, 2001). The argument seemed to focus, however, on the conditions in which tangible rewards should or should not be used as incentives. Both sides have apparently come to a satisfactory, though inconclusive, agreement on the conditional use of praise in the classroom. The meta-analyses mentioned above reflect the high degree of variance with which the original experiments have been interpreted. Recent work on the relationship between intrinsic motivation and rewards, specifically verbal, seeks a reconciliation of seemingly uncompromising perspectives, those advocating the enhancement of motivation through extrinsic reinforcements and those promoting autonomy, competence, and self-determination. The following section will detail research into how extrinsic and intrinsic motivation can be enhanced in a parallel fashion, highlighting those variables influencing the enhancing effects of praise.

Balancing Extrinsic and Intrinsic Motivation

“The more that the theoretical orientations of behaviorism and cognitive psychology are identified with a context in which one paradigm’s progress is seen as the other’s loss, the greater will be the impediment to a fuller understanding of intrinsic interest and creativity.”

- R. Eisenberger & J. Cameron, 1996

According to O’Leary and O’Leary (1977), the use of praise as a behavioral modification tool must be contingent, specific, and varied. In other words, in order to function as a reinforcement, praise: must follow an actual behavior, must be tied to specific actions, and must be perceived as sincere (Brophy, 1981). An important conclusion from early research into the use of praise as a means to behavior modification is that

the meaning and function of teacher “praise” will depend not only on the verbal content, but on nonverbal accompanying behavior which can either reinforce or contradict it, and on situation and context factors which condition student expectations about and perceptions of teacher behavior. (Brophy, 1981, pp. 18-19)

Brophy (1981) explicitly linked the use of praise to its effects on students’ self-perceptions of competence and autonomy, as well as highlighting the interpersonal context in which praise occurs. Subsequent research outlined five variables determining whether praise will have positive or negative effects on intrinsic motivation: autonomy, competence, performance attributions, sincerity, and expectations (Henderlong & Lepper, 2002). Upon reviewing the literature on praise and motivation, Henderlong and Lepper (2002) found that praise serves an enhancing function when it promotes autonomy, relates positive information about an individual’s abilities, and is perceived as honest.

In a recent study on the effects of rewards on internal motivation, the results suggested that linking rewards and achievement during learning and testing enhanced intrinsic motivation (Cameron, Pierce, Banko, & Gear, 2005). The authors, coming from a reinforcement theory perspective, sought to identify the conditions under which rewards are most effective. Further, the study reflected the current trend in motivational research that recognizes and incorporates individual, interpersonal, and environmental variables into the interpretation of the results.

Though the literature demonstrates a more refined and collaborative exploration of how rewards, specifically praise, and intrinsic motivation interact, research regarding its application to the field of special education remains diffuse and deficient. Recommendations for educators in this field continue to advocate the use of rewards, praise, and punishment for motivating behavior and achievement (Dev, 1997; Fisher, Ninness, Piazza, & Owen-DeSchryver, 1996; Riley, 1997; Vaughn, Bos, & Schumm, 2000). However, in light of research informed by cognitive evaluation theory, these practices appear inadequate for addressing the diverse needs of the students.

Current Trends – SDT and Educational Psychology

Self-determination is a combination of skills, knowledge, and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior. An understanding of one’s strengths and limitations together with a belief in oneself as capable and effective are essential to self-determination.

- Field et al., 1998

Recently, research applying SDT to general and special education settings has further refined the understanding of external rewards versus intrinsic
motivation. The original view describes behavior, whether learning or social, as purely intrinsically motivated (represented by a lack of observable external motivators) or purely extrinsically motivated (in the presence of observable rewards). Yet, as Lepper and Henderlong (2000) point out, “success in school…may require [educators and researchers] to attend simultaneously to both intrinsic and extrinsic sources of motivation” (p. 295). External rewards, they argue, do have a place in the learning process, whether to promote initial engagement in an activity focused on skills acquisition or in response to the wider context of schools being held accountable through standards-based curriculum and tests. In understanding motivation for learning behavior as a continuum, from internal to external sources, educators can more effectively shape their curriculum, activities, and behavior with a goal of encouraging internally motivated learners.

SDT, with this continuum in mind, evolved in order to incorporate the internalization of self-regulated behavior (Deci, Eghrari, Patrick, & Leone, 1994). In an effort to understand how learners internalize behaviors that help them function effectively within their social context, Deci (1994) designed an experiment seeking to illuminate those contextual factors that support internalization. The authors distinguished between integration, “through which the regulation is assimilated with one’s core sense of self,” and introjection, “which entails taking in a value or regulatory process but not accepting it as one’s own” (Deci, Eghrari, Patrick, & Leone, 1994, p. 119). Characteristics of an autonomy-supportive context include “meaningful rationale, an acknowledgement of conflicting feelings, and a style that minimized pressure and conveyed choice” (Deci, Eghrari, Patrick, & Leone, 1994, p. 125). The results of the study supported the prediction that subjects would report a greater amount of internalization under conditions supportive of self-determination. The results further suggested that contexts supportive of self-determination promoted integrated internalization while contexts perceived as controlling reflected introjected internalization.

Vansteenkiste, Lens, and Deci (2006) applied the concept of internalization in a subsequent review seeking to distinguish and relate motivation (both autonomous and controlling) and goals (both intrinsic and extrinsic). Examples of intrinsic goals are “growth, relationships, and community,” whereas extrinsic goals are represented by “wealth, fame, and image” (Vansteenkiste, Lens, & Deci, 2006, p. 20). The authors interpreted the results in support of teaching practices that focus on the long-term relevance of the material for the students. The authors also found that regardless of whether the individual attaches more importance to extrinsic or intrinsic goals, explicitly relating the activity or material to her intrinsic goals will promote a higher degree of intrinsically motivated learning behavior.

Conclusions

A person convinced against her will is of the same opinion still.

- Anonymous

For current and future educators, student motivation and its relation to academic achievement is a complex and recurrent issue, involving students’ cultural, linguistic, and socioeconomic backgrounds, the classroom environments, students’ interpersonal relationships between teachers and students and among students, and students’ dispositions toward school. For educators in the field of special education, tasked with encouraging students’ cognitive, social, and emotional development toward goals outlined by the student’s individualized education program, the challenge of enhancing student motivation levels is further complicated by the varying abilities of the students. Historically, students with learning disabilities or labeled as emotionally handicapped encountered school and classroom environments relying on the use of verbal feedback and tangible rewards to reinforce acceptable and appropriate behavior (Burden, 1995; Cohen, 1986; Riley, 1997; Skinner, 1953). Recommendations for motivating behavior and achievement continue to advocate the use of rewards, praise, and punishment (Dev, 1997; Fisher, Ninness, Piazza, & Owen-DeSchryver, 1996; Riley, 1997; Vaughn, Bos, & Schumm, 2000). However, research into the effects of rewards and praise on intrinsic motivation within a general education context suggests that educators should adhere to a broader and more nuanced conception of how to enhance students’ feelings of intrinsic motivation.

Intrinsic motivation is characterized by involvement in an activity for the purpose of constructing meaning from that experience. In other words, and in terms of learning and development, this type of motivation is what drives an individual to seek challenges suited to her abilities, to choose if and how to address those challenges, and to feel effective in overcoming those challenges (Deci & Ryan, 1985). Enhancing intrinsic motivation, then, becomes a process of fulfilling basic psychological needs; these needs were labeled self-determination, competence, and relatedness, and formed what Deci (1985) called Self-Determination Theory (SDT). In response to the behaviorist tendency to explain motivation, in its purest form, as response to some...
environmental stimulus, SDT offered an understanding of motivation as internally driven. In other words, the individual, according to SDT, behaves intentionally and in order to fulfill basic needs rather than to appease the demands and requests of another person.

In seeking to explain seemingly different levels of student motivation to participate in and complete a task, Cognitive Evaluation Theory (CET) refined SDT, distinguishing between controlling and informational interactions and environments. Controlling situations utilize pressure and coercion in order to elicit a specific behavior from a student, whereas informational situations deemphasize the power differential between teacher and student, focusing instead on those structures that will give a student reason to behave a certain way. Studies carried out from a CET perspective suggest that expected tangible rewards tend to undermine intrinsic motivation (Green & Lepper, 1974; Harackiewicz, 1979; Lee, Syrnyk, & Hallschmidt, 1977; Lepper, Greene, & Nesbitt, 1973). With regard to praise, an intangible yet highly popular and seemingly neutral reward, CET predicted that the utility of praise would be determined by the interpersonal context within which praise is offered and received.

Praise is assumed to address a key psychological element that contributes to student participation and success in the classroom – student motivation. For many educators, praise is also assumed to reinforce effective learning behaviors, provide feedback about a student’s work, and enhance a student’s self-esteem (Brophy, 1981; Dev, 1997; Kohn, 1993). As a form of extrinsic reinforcement, however, praise can be problematic, and, according to Brophy (1981), must meet the following criteria in order to function as an informational reinforcement: it must follow an actual behavior, it must be tied to specific actions, and it must be perceived as sincere.

Suggestions for Future Research

As research continues to focus on the roles of intrinsic and extrinsic motivation in education, it sheds light on the need for a more nuanced view of how students in special education settings can attain more autonomy, demonstrate enhanced levels of competence, and feel integrally connected to their peers within their learning environments. When students with learning disabilities or students labeled as having emotional or behavioral disorders are encouraged to make choices regarding their cognitive, emotional, and behavioral objectives, will they feel more intrinsically motivated? Further, when students can see that their input has been taken into account by their teachers and parents, or when their intentions and abilities to be self-determining have been validated, will they demonstrate observable and measurable behaviors appropriate for effective learning in the classroom? Ultimately, how can research into the effects of extrinsic reinforcements, such as praise, on an increased frequency of internally motivated behavior best inform the everyday practices of all educators?

Not only should educators be aware that student motivation is dynamic and context-dependent, but also that students come to school with unique cultural values. Another focus of this research should attempt a cross-cultural understanding of intrinsic and extrinsic motivation. How do students from more collectivist cultures respond to tangible rewards, or to praise? Should educators utilize interaction styles and curriculum that emphasize individual autonomy and competence with all of their students? Or, like the effects of praise, are these interactions reflective of context-dependent experiences and relationships?

Finally, what are the long-term effects of encouraging students in the enhancement of intrinsic motivation? Over time, do themes emerge that would justify more of an emphasis on the development of intrinsic motivation toward lifelong learning endeavors? These questions, in exploring the longitudinal legitimacy of applying motivation research in classrooms, supplement the current research trends seeking to reconcile external reinforcement with internally guided behavior.

Recommendations for Practice

For educators in both general and special education settings, the questions become more immediate and specific. What teaching methods and strategies can I implement right now, today, that will encourage the development of more internally motivated behavior? How can I support my students’ intrinsic interest in an activity within a school environment, and a collective of educators, that view extrinsic rewards as the best way to motivate student behavior and achievement? Though praising my students is well-intentioned and designed to bolster their self-esteem, do the effects of that praise reflect an unintended consequence of undermined intrinsic motivation? How can I assess whether students are performing for their own satisfaction or performing for the teacher?

This review of current research literature found that students regulate their behavior, decisions, and attitudes through a constant negotiation between extrinsic and intrinsic factors (Lepper, Henderlong, & Iyengar, 2005). Studies designed to distinguish whether internally or externally driven learning behavior is more effective suggest “that self-
determined regulation is associated with more positive attributes than controlling regulation” (Deci, Eghrari, Patrick, & Leone, 1994, p. 140). These attributes include enhanced feelings of intrinsic motivation, higher levels of enjoyment in a variety of activities, and an increase in the depth of engagement in learning (Cordova & Lepper, 1996). Educators who support and encourage the autonomy of their students will elicit these characteristics. The research literature suggests, then, that students benefit from autonomy-supportive learning environments and interpersonal relationships.

Reeve (1999) proposed the following teacher behaviors as potential explanations for why students benefit from teachers who support student autonomy:

time spent listening, time spent holding instructional materials, frequency of directives, frequency of questions about what the student wants, frequency of contingent responses to the student’s questions, number of solutions verbalized, number of perspective-taking empathetic statements, extent of support for intrinsic motivation (supports initiative, is student centered), and extent of support for internalization (provides rationale, promotes value of education). (p. 546)

These behaviors represent guidelines for educators who seek those practices that encourage self-determined students in their classrooms. For teachers in the field of special education, the task becomes a nuanced and ongoing reconciliation of extrinsic rewards and self-determination.

Students with specific learning disabilities, or labeled as having emotional or behavioral disorders, are thought to “require...more extrinsic motivation to increase the likelihood of their repeating effective academic behavior (Witzel & Mercer, 2003, p. 90). However, though external rewards may function to engage a student’s initial interest in an activity, “it does not nourish, reliably, the long course of learning by which [one] slowly builds in [one’s] own way a serviceable model of what the world is and what it can be” (Adelman, 1978, p. 49). If the goal, as this review of research literature found, is to stimulate the development of internally motivated behavior, then educators must focus their awareness and actions on their own practices that undermine intrinsic motivation.

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Shared Decision-Making in Public Schools: A Case for Student Involvement

by Rachel Bishop

This paper examines student participation in decision-making at public schools. Academic and social outcomes for student participants in shared decision-making are discussed. Trust, a common vision, and other necessary qualities of educators choosing to implement shared decision-making are examined. Schools using shared decision-making are profiled and suggestions for successful shared decision-making are discussed.

Introduction

In the current political climate, public schooling has seen an increase in national control. Under the pressure of national regulation, states and districts are exerting more control over schools. Consequently, principals and teachers are experiencing decreasing control over their schools and classrooms. Meanwhile, students, the recipients of education, are at the bottom of the hierarchy and left with little to no space to participate in decisions about their own educations.

In contrast, helping students to become capable and contributing members of a democracy has long been a goal of education in the United States. In spite of the current political climate, some schools and districts are embodying this through the practice of shared decision-making. Shared decision-making or participatory decision-making is when all stakeholders—administrators, teachers, students, and parents—are active participants in the decisions made at their schools. These schools and districts believe that, given the opportunity, both educators and students have much to gain from increased student involvement in decision-making. Students can offer educators unique perspectives about their needs in order to thrive in school. Educators can provide students the opportunity to learn valuable real life skills through participating in decision-making. Implementing shared decision-making is not easy. It requires a fundamental change in our understanding of the meaning of power and leadership, and a commitment of time.

Is this time well spent? Are students really capable of making valuable contributions to the governance of their schools? Do they really benefit from their participation? This paper reviews theory and research about student involvement in decision-making. The scope is limited to the available research on elementary and secondary schools in the United States. Currently there are many educators theorizing about shared decision-making but only preliminary research investigating their theories. The paper discusses what is currently known about outcomes for students who participate in decision-making as well as implications for administrators who want to use shared decision-making. Areas for further investigation are also discussed.

Literature Review

Democracy in Education

“Democratic social arrangements promote a better quality of human experience,” says John Dewey (1938/1997, p. 34), educational theorist and philosopher. Dewey (196/1997) believed that democratic society depends on students having the chance to develop as citizens in public schools. The curriculum developed by the National Assessment of Educational Progress in Civics asks that students shall have the knowledge “[h]ow does the government established by the Constitution embody the purposes, values, and principals of American Democracy?” and “[w]hat are the roles of citizens in American democracy?” Students also need “participatory skills,” which are “those skills necessary for people to be informed, competent, and responsible participants in the political process and civic society” (U. S. Department of Education, 2001, p. 5). But, in the classroom, students are taught primarily civics knowledge. There is very little opportunity to practice participatory skills. It is a widespread and well-documented phenomenon that students have not been participants in the decision-making at their schools (Battistoni, 2004; Cushman, 1998; Effrat & Schimmel, 2003; Levin, 1998; McKibben, 2004; Patmor & McIntyre, 1999; Schimmel, 2003). They do not feel that their voices are heard or valued at school (Battistoni, 2004; Mitra, 2004; Patmor & McIntyre, 1999; Schmuck & Schmuck, 1990).

Alongside the official civics curriculum, schools also have an implicit civics curriculum. This is not what is taught formally, but what students learn from the politics of the schools that they attend. David M. Schimmel (2003) conducted a survey of the codes of conduct and various schools. He found that school rules were not created with the input of students but were imposed on students. Codes of conduct did not
generally inform students of their rights. Rules tended to be ambiguous and unexplained and were often so harsh as to alienate the majority of students who are not trouble-makers. The codes of conduct, and the way that they are created and enforced, serves to undermine the formal civics curriculum (Schimmel, 2003). They teach students that they are powerless.

While students’ voices are typically not heard or valued, students very much have the desire to participate (Battistoni, 2004; McKibben, 2004; Patmor & McIntyre, 1999; Roberts & Dungan, 1994). George L. Patmor, II and D. John McIntyre (1990) conducted a survey of students and principals at high schools in Kentucky. They found that, while students did not feel that they had many options for participation, both students and principals believed that students should have more opportunities for participation (Patmor & McIntyre, 1999). Sonia Nieto (1994) conducted in-depth interviews with high school students of varying racial and ethnic backgrounds. The students she talked with had many compelling thoughts to share about their education. Specifically, they had unique insights about the needs of disadvantaged students (Nieto, 1994). Teachers and administrators have something to learn from the unique perspectives of students. School boards across the country have started to recognize the need to listen to the student perspective when making decisions. Currently, about 200 students sit on school boards nation-wide. Fifteen percent of boards have a student representative, usually in an advisory capacity (Joiner, 2003).

Outcomes for Student Participants

Along with the unique perspective students have to offer to adults, increased student participation in school decision-making has the potential for many positive outcomes for the students themselves. When students were allowed to participate in the creation and enforcement of rules at their school, they took more responsibility for following those rules (Levin, 1998; Smith, 2003). At Kingston High School in Kingston, NY, a committee of administrators, teachers, and student representatives are responsible for writing and revising the school’s code of conduct. Researcher Paula Denton (2003), who conducted a case study of the student members of the Jefferson Committee at Kingston, found that the students who participated in the committee had increased knowledge of their rights. They learned to express their thoughts, to listen and to compromise (Denton, 2003).

Researcher Dana L. Mitra (2004) conducted a case study of two student-involvement initiatives at Whitman High School in Northern California. At Whitman, Latino students were involved in the Pupil School Collaborative, in which they assisted teachers by translating for and tutoring fellow Latino students. Other student representatives at Whitman participated in the Student Forum, a focus group in which students worked with teachers to create new school programs and policies to help incoming ninth graders succeed academically. Participation in the Pupil School Collaborative and the Student Forum had a number of positive outcomes for the students involved. Members of the group had increased positive relationships with adults and an increased sense of connection to their school. They also developed skills in cooperating, negotiating, and public speaking (Mitra, 2004).

Implications for Administrators

Although shared decision-making has positive effects on students, it has not been incorporated into public schools in a widespread way. Adults are often concerned that if they afford students power, they will lose control (Denton, 2003; Newman, 1992). Shared decision-making requires a new conception of leadership based on collaboration with students (McKibben, 2004). Principals are required to give up power and trust students. While there has been very little research done on students who are involved in decision-making at their schools, teacher participation in decision-making has quite a large research base.

Researchers Kenneth Leithwood and Teresa Menzies (1998b) reviewed 83 studies involving school-based management. Teachers involved in school-based management reported increased commitment, morale, and collaboration (Leithwood & Menzies, 1998b). In another review of 77 studies, the researchers found that implementing school-based management effectively was not easy. The role of the principal was crucial. If the principal was not dedicated to the concept of shared decision-making, then it was not successful. In many of the studies reviewed by Leithwood and Menzies (1998a), school-based management was not effective.

Shared decision-making with students is similarly impacted by the role and commitment of the principal. At Thompson School, a secondary school in New England, the visionary assistant principal, George, was dedicated to the idea of shared decision-making, and he created structures in the school to allow for student voice. George envisioned a school where students designed classes and worked for the school. There was, however, a contrast between what George imagined and what he was able to create. Ironically, he sometimes resorted to using his position of authority to impose his conception of shared decision-making (Dorfman, 2004).
For principals accustomed to the traditional method of hierarchical leadership, the switch to shared decision-making can be difficult. A commitment to shared decision-making means that an administrator must allow decisions to be made even if they are different than what the administrator him/herself wants (Short & Greer, 2002). Shared decision-making does not mean that all decision making power is given to students. Instead, administrators work with all stakeholders (teachers, students, and parents) to make decisions together. In collaborative leadership, administrators, teachers, and students still have different roles. These differing roles are based not on one’s position in a hierarchy, but on their differing expertise in various areas. Defining roles in this way is beneficial to the interests off all decision making participants (Levin, 1998).

**A Common Vision**

Researchers Barbara and Joel Myers and Lynn Gelzheiser (2001) conducted a study of three schools in the first year of using decision-making teams. The number and type of contributions made by administrators, teachers, parents, and students during meetings was recorded, as well as the number and type of actual decisions each party was involved in. In one team, the principal dominated the discussion, and the other stakeholders were not able to make a meaningful contribution. In the other two teams, the administrators still did the majority of the talking, but other stakeholders were able to make a contribution. Only one team had student members, who made a small but significant contribution to their team. The two teams that were more successful in shared decision-making both had taken the time to discuss a common vision for their work. This set the stage for their collaboration (Meyers, Meyers, & Gelzheiser, 2001).

For shared decision-making with students, teachers must also embrace the concept of collaborative leadership. Patrick J McQuillan (2005) studied two small high schools dedicated to sharing decision-making with students. Both high schools created structures for student voice, such as all school meetings, representative committees, and focus groups. One school was successful in using shared decision-making but in the other school the structures for student voice slowly fell apart (McQuillan, 2005).

At Russel High School an issue arose concerning the policy for incomplete classes. Although theoretically dedicated to the concept of shared decision-making, the adults at Russel chose not to bring this issue to the students. They were concerned that opening it up for discussion would weaken the students’ confidence in the adults at the school, or that students would manipulate the opportunity to participate in the decision for their benefit. When the issue continued to be unresolved, the students conducted a survey of their thoughts on the incomplete policy, and the adults eventually opened the discussion up to them. Although Russel High School had decided to use shared decision-making, there was no discussion or agreement at the school in advance about what issues students should participate in. The adults did not trust that students could participate, and therefore they did not solicit their input. And the students did not trust that their input would be heard and taken into account. Over the course of the year, the structures designed for student input at Russel fell apart (McQuillan, 2005).

**Trust**

Shared decision-making takes more than just structures for student input. It also requires a change in mindset on the part of adults. Trust is a crucial ingredient. The adults must believe that students have a valuable contribution to make (Cook-Sather, 2002; McQuillan, 2005; Smith, 2003). And students must trust that their thoughts will be listened to and taken into account (Denton, 2003; Effrat & Schimmel, 2003; McQuillan, 2005; Smith, 2003). Because the adults and students at Russel did not share this trust, shared decision-making at the school was not successful (McQuillan, 2005).

In contrast, Frontier High School was able to incorporate shared decision-making much more effectively. The original commitment to shared decision-making at Frontier came from the principal and teachers who served on the design team for the school. But, once the school started, this became a school-wide discussion. When, during the first semester at the new school, students were afforded too much power and things felt a bit chaotic, the school as a whole, principal, teachers, and students, discussed the role of the student. The outcome of this was a common vision that allowed shared decision-making to be implemented much more successfully at Frontier (McQuillan, 2005).

**Supporting Student Participants**

Frontier High used another strategy that led shared decision-making at the school to succeed. Adults at the school helped students learn to use the power that they were given effectively (McQuillan, 2005). One of the largest concerns about shared decision-making is what students will do with the power they are afforded. Certainly, in a school, adults ultimately have a legal and ethical responsibility to their students. Are students capable of making good decisions, or will they manipulate their power to their advantage? Benjamin Levin (1998) argues that competence is not a requirement for adults to
participate in democracy, so there is therefore no justification for it being a requirement for students to participate.

There is evidence however, that when students are asked for their ideas, they are thoughtful critics of their education (Corbett & Wilson, 1995; Nieto, 1994; Patmor & McIntyre, 1999; Roberts & Dungan, 1994). None of the research reviewed specifically addressed the question of what type of decisions students would make. However there is indication that, when students are allowed to make decisions, the decisions they make are just as rigorous, if not more rigorous, than those made by administrators and teachers (Levin, 1998; Schimmel, 2003).  

Schools can do things to assist students in making decisions. Students can be taught the rules of parliamentary procedure (Angell, 1998). Adults can allow wait time for students to gather their thoughts and share their opinions before giving their own thoughts (Denton, 2003). Schools can embrace the fact that students will make mistakes in decision-making and view them as an opportunity for further learning rather than a reason to step in and take over (Levin, 1998). And most importantly, administrators and teachers can simply give students the genuine opportunity to participate and practice decision-making.

Take the Time?

In the current culture of schooling there is quite an emphasis on testing and the teaching of basic skills necessary to pass standardized tests. There is increased national control over education (Spring, 2005) and very little decision-making power is passed down from the national, state, and district level to schools, leaving less for administrators to share with their students. The question then arises whether it is worth the time and effort to involve students in the decisions left to make.

At a time where student disengagement in school is a well-known and widespread problem, shared decision-making has the possibility of reconnecting students to their schools. Although research has not yet examined this, it is theorized that when students are involved in decision-making at their schools, they will be more invested in their schools and their educations (Gutmann, 1987; McQuillan, 2005; Patmor & McIntyre, 1999; Smith, 2003). Shared decision-making certainly takes time. But this is not time lost. In the book Learning Together, Children and Adults in a School Community, Carol Lubomudrov (2001), a former principal, suggested that we value the time spent thinking and working together. As discussed earlier, participation in shared decision-making has many positive outcomes for students. These benefits certainly arise from the time spent making decisions together.

Where Shared Decision-Making is Happening

While there are many reasons to consider involving students in decision-making, are there schools that are actually using these strategies? Researcher Patricia and Richard Schmuck (1990) took a trip across the country visiting schools in small towns to find out. They theorized that in small communities participation is valued, and that this might be reflected in the small town schools. The researchers visited 25 different schools, but they found that small town schools were no more democratic than urban schools. In interviews with students leaders, students expressed that they had very little influence (Schmuck & Schmuck, 1990).

Although shared decision-making on the school level is relatively rare, there are teachers who are allowing students to make decisions in their classrooms. In a study which compared elementary students who participated in a teacher-directed, or in a self-directed PE unit, students who were allowed to make their own decisions about their PE class had a more positive attitude, a higher self concept, and improved motor skills (Schempp, Cheffers, & Zaichkowsky, 1983). In her fourth through sixth grade classroom, Ann V. Angell (1991) organized a class council. Through participation in the class council, her students developed democratic skills and attitudes. They were respectful for differences of opinion and had empathy for others. She also found that, although it sometimes took many meetings of continued discussing of their decisions, her students followed the rules they had created for themselves (Angell, 1991). Student involvement in decision-making has successfully been implemented in these elementary-level classrooms.

Parker Charter Essential School is a high school that is also successfully implementing shared decision-making. Parker School is a member of the Coalition of Essential Schools. The Coalition of Essential Schools is a network of schools committed to ten common principles of school reform (CES National, 2006). Principle 10 states that a school should “model democratic practices that involve all who are directly affected by the school” (Cushman, 1998, p. 1). Each school in the coalition implements the principles in its own way.

At Parker School, students participate in advisory groups, in community congress, and in a justice committee. Parker School has faced the issues discussed previously when sharing decision-making with students. There was concern over the time that shared decision-making takes and the issue of trust between students and adults. Yet, the school has
remained committed to sharing decision-making, and it is benefiting from this. The school features a strong community, student feelings of ownership of the school, and deep and meaningful relationships between students and adults (Smith, 2003).

Conclusion

Other research on schools that are using shared decision-making with students is scarce. Searches in ERIC on the terms “participative decision-making” “student involvement” and “school governance” did not return any further studies. There are still many questions to be answered about sharing decision-making with students. The research reviewed has mostly focused on the outcomes for those students involved in shared decision-making. The question remains, what are the effects of shared decision-making on a school as a whole? The issue of student representation has also not been yet been addressed by the research. If student representatives participate in decision-making, will their decisions be reflective of the student body as a whole? Will the systematic problems of inequity in society arise among students who do or do not participate in decision-making?

The research on student involvement in decision-making is still in a preliminary stage, but much has already been learned form the available research. In review, students have not traditionally been participants in decision-making at their schools but had unique and valuable perspectives to share when given the opportunity. Students involved in decision-making at their schools benefited from this participation. They had increased democratic skills, increased interest in following the rules and policies of their school, and an increased sense of ownership and commitment to school. Implementing shared decision-making was a challenge for educators. It required a new understanding of leadership based on collaboration and mutual trust. This was facilitated by a clear common vision agreed upon by all participants. Support for student participants and a commitment to taking the time were also essential components for successful shared decision-making.

Recommendations for Practice

An analysis of the literature on shared decision-making illuminates many recommendations for educators wishing to incorporate shared decision-making into their schools. Teachers may choose to use shared decision-making because they believe teaching participatory democratic skills is important, because they believe students have unique and valuable perspectives to add to decision-making, because they believe it will increase students investment in school, or for all of these reasons. Teachers have the power to create class councils (Angell, 1998) and use community rule-making (Effrat & Schimmel, 2003) in their classrooms. Shared decision-making at the school level, however, requires the commitment of administrators (Leithwood & Menzies, 1998a).

As discussed in the literature review, shared decision-making requires teachers and administrators to reconceptualize their role of leaders as facilitators and supporters decision-making involving all stakeholders (McKibben, 2004). For administrators ready to make this change, perhaps site-based management incorporating teacher voice into policy making should be an initial step. The role of the principal is crucial for successful shared decision-making (Leithwood & Menzies, 1998a) and this would give principals the opportunity to practice their new role as leader by working with teachers before choosing to open up decision-making to students.

Although still limited in scope, the existing theory and research on shared decision-making indicates that sharing decision-making with students should have a positive effect on the climate of the school (Smith, 2003). When participating in decision-making students are more willing to follow the rules of their school and more invested in their schooling in general (Gutmann, 1987; McQuillan, 2005; Patmor & McIntyre, 1999; Smith, 2003). Before implementing shared decision-making educators could conduct a climate survey of their school. Further climate surveys conducted later would give an indication of the effects shared decision-making is having on the school.

A good entry point for sharing decision-making with students is the area of school rules. Student representatives can be asked to participate in writing and revising of the school rules (Effrat & Schimmel, 2003). This is an area where students will likely have plenty of thoughts and perspectives to contribute.

In order to get the most out of partnerships with students, some structure for working together is useful. The initial meeting of a decision-making committee should focus around goal setting and creating a common vision. Through this discussion of the roles of participants in the group, a commitment to collaborative leadership is made. The formal statement of vision and decision to work together will hopefully minimize educators’ question of whether students have a valuable contribution to make, and students’ question of whether their voice will really be heard and taken into account (Meyers et al., 2001).

While participating in decision-making committees, educators must support students and help them to develop the skills necessary to participate (McQuillan, 2005). The first step is allowing the
participating students will develop their democratic
skills. Teachers can further support this development
by modeling active listening and compromise. They
can teach skills in parliamentary procedure or other
meeting facilitation structures (Angell, 1998).

Through working together on rule-making,
students and educators can build a relationship
of trust and educators can confirm their dedication to
sharing decision-making with students. Once this has
happened, shared decision-making can be broadened
to include other decisions made in schools. Student
participation is possible and appropriate for most
areas of school governance. At the secondary level,
students can help: in the enforcement of rules, in the
hiring of teachers and other employees, in the
scheduling of the school day and year, in decision-
making of how to spend discretionary part of the
school budget, in curricula decisions, and in other
areas. At this point students and educators could also
work together to create a constitution for the school
that records the roles of the various stakeholders
(administrators, teachers, students, parents, and
community members) in decision-making and other
important policy decisions affecting the school. A
formal document of this type would serve to maintain
and support the value of shared decision-making at
the school through turnover of students and staff.

As students benefit from direct participation in
decision-making, opportunities should be made for as
many students to participate as possible. Student
participation should not be limited to the most
popular or highest achieving students. All students
should qualify to participate and opportunities and
procedures to participate should be shared clearly
and regularly with all. One way to increase participation
in a large school is for issues to be brought to class
meetings to be discussed simultaneously by the entire
school. Representatives from each class could then
bring ideas back to the decision-making group. This
method allows all students to share their ideas and
would hopefully peak nonparticipating students’
interest in taking a more active role in decision-
making committees.

Along with the research reviewed, there are
many popular press publications, websites, and
organizations supporting the use of shared decision-
making. Educators and students looking for support
while implementing shared decision-making can look
to Sound Out (SoundOut, 2007), an organization that
promotes student voice in schools, and to the
Coalition of Essential Schools (CES National, 2006),
a network of schools that share common principles,
one of which is “democratic and equitable school
policies and practice.”

Effective shared decision-making will take the
trust, commitment, and hard work of students and
educators. This is time will spent and work well done
as educational research indicates that student involve-
ment in decision-making has many positive outcomes
for students and schools.

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Media Literacy in K-12:
Using Media to Advance Critical Thinking

by Robert Cahill

Preparing students to become literate in the world of growing media messages is becoming a daunting task for educators. Students are exposed to a growing array of media sources and messages that influence their beliefs, behaviors, and values. Educators are often unsure to what extent that media should be used in the curriculum or lesson plans, and therefore lack strategies for students to critically think about the media messages they are exposed to daily. Reviewing the literature on media education in the United States, this article explores the perceived benefits of students analyzing and critically thinking about media, suggestions for implementing media education in K-12 public schools, as well as challenges and criticisms to media literacy as a validated method for teaching.

Defining Media Literacy

Modern United States has witnessed the rise of media culture. With advancements in technology, the youth are indoctrinated into a world of television, films, advertisements, commercials, billboards, slogans, the Internet, music, video game consoles, and a plethora of other forms of media messages. The Nielsen Media Center reports that in 2005, the average household in the United States kept the TV on for over eight hours per day (Nielsen Media Research, 2005). A Kaiser Family Foundation study found that in the twenty-first century, 99 percent of children between the ages of 2 and 18 years-old live in homes with a TV set (Kaiser Family Foundation, 2005). These numbers indicate exposure to only one form of media. That same Kaiser study reports that the average child spends six-and-a-half hours with various forms of media – from television and music to video game consoles and computers. In this sense, media have become the dominant “texts” of youths (Bruce, 2006). Youth spend more time with media than with traditional print texts. Advocates of media literacy see the potential of education to effectively prepare students to participate in a world saturated with media messages; these educators strive to expand the definition of literacy to include media literacy (e.g., Adams & Hamm, 2000; Daley, 2003; Hobbs & Frost, 2003; Johnson, 2001; Kist, 2005; Silverblatt, 2001).

The definition of media literacy varies. Media literacy is often defined as “literacy” that includes all forms of media as “texts.” If literacy is the ability to read and write; consequently, media literacy is the ability to “read” (analyze) the media, and “write” (produce) the media (Johnson, 2001). According to Professor Renee Hobbs (2005) “media literacy is an expanded conceptualization of literacy that encompasses the ability to access, analyze, evaluate, and create messages in a wide variety of forms” (p. 61). Media literacy is not merely showing a documentary, or informing students how to navigate the Internet, however rewarding those experiences may be. Students learn to inform themselves using media, engage critical thinking, and likely use hands-on skills to produce media. Understanding how the media manipulates people is essential to media education, which also leads students to reflect on how the media affects society and their individual identities.

The following literature review outlines the social and psychological effects of media, provides a brief overview of media literacy in the United States, and proceeds to explain strategies and benefits of implementing media literacy curricula. These benefits include, but are not limited to: advancing students’ critical thinking by analyzing texts that relate to their personal lives and home cultures, and empowering students with a voice and context to engage serious subject matters that affect them personally. The literature review then balances the positive aspects of media literacy with criticisms and challenges preventing media literacy from becoming accepted into mainstream public education. Media literacy faces criticism based on its perceived lack of academic validity, while the lack of resources for equipment and teacher training prevent media literacy from flourishing in the United States.

Effects of the Media

Debate ranges as to the extent the media affects individuals and society. Media scholars believe the media not only “reflects” reality, but “creates” it (Schwarz, 2003, p. 53; see Galicaian, 2004; Goodman, 2003; Hobbs, 2001; Silverblatt, 2001). However, most individuals are not directly or immediately manipulated by the media, because they rely on other sources of information such as family, friends, coworkers, and other social groups. Over time, the media does have a long-term influence on “beliefs, attitudes, and behavior that can change
shared cultural norms and social institutions in society at large” (DeFleur & Dennis, 1998, p. 459). In reference to education, the media are often considered part of the “hidden curriculum,” because students are influenced by the media before they ever step into a classroom.

Although media do not tell people what to think, it sets the agenda of what gets talked about (see Martinson, 2004; Schwarz, 2003; Silverblatt, 2001; Torres & Mercado, 2005). For example, if television or print news extensively covers celebrity sex scandals, and neglects to cover information that affects the health and wellbeing of people, this impacts the way people inform their decisions. Also, media are the way that people learn about those people whom they do not come into contact with (Horn, 2003; Silverblatt, 2001). For what we do not know, we rely on what we have seen or heard in the media – however biased or limited this perception. For instance, a white middle-class suburban person with little personal experience interacting with people in urban areas, without any other experiences to draw from, will have to rely on what he has understood from the mass media (Horn, 2003). The techniques and messages of the media are shaped to increase profits. The commercial for-profit media is not responsible for educating people, however, the media still “educates.” The impact of media over time influences values, beliefs, and opinions, which eventually shape behavior. Media have become powerful influences in the United States although the effects have not been fully understood or discovered.

A Theoretical Foundation of Media Literacy

The Center for Media Literacy in Los Angeles traces the theoretical foundation of media education to the early 1960s, with the works of media philosopher Marshall McLuhan and Harvard professor John Culkin. Heavily influenced by McLuhan, Culkin incorporated films, photos, and television into traditional forms of humanities, and eventually founded the Center for Understanding Media, Inc. This was the first organization in the United States with the objective of understanding the media and training educators to understand media (Moody, 2003).

Kathleen Tyner (1991), an influential professor and advocate of media education, provides a framework for understanding media education in the United States. Since the 1970s, educational protectionists led efforts to defend the youth against violence on television. Educators emphasized critical viewing of media in order to minimize children imitating violent acts on TV. By the 1980s, the federal government sought educational reforms to train students to compete in the global marketplace. Viewing media critically lost priority to computer literacy programs. During this time, guidelines that regulate children’s programming diminished, whereas the youth were increasingly exposed to media. Since the 1990s, the United States has seen the proliferation of media education organizations, resource programs, federal grants, and higher education courses to address media literacy. Much of this work has been influenced by international efforts. Britain, Canada, and Australia are regarded as leaders of media education, where media literacy is taught nationally in public schools. In Canada, for example, media education is required for seventh-through twelfth-grade and has been since 1987 (Silverblatt, 2001). In the U.S. media literacy has struggled to flourish, despite the dedication of media education advocates.

Guidelines for Implementing Media Literacy

Advocates of media literacy aim to increase its acceptance in the K-12 curriculum. The Center for Media Literacy (2004) unveiled Five Key Questions appropriate and applicable to engage media literacy for all ages in the K-12 system. The focus of media education is on helping students reflect on and understand the following:

(1) Who created this message?
(2) What creative techniques are used to attract my attention?
(3) How might others understand this message differently from me?
(4) What values and points of view are represented in, or omitted from, this message?
(5) Why is this message being sent?

These questions, respectfully, engage discussions of authorship, format, audience, content, and motive. This analysis is critical for understanding core concepts of media literacy, which include:

(1) All media messages are “constructed.”
(2) Media messages are constructed using a creative language with its own rules.
(3) Different people experience the same media message differently.
(4) Media have embedded values and points of view.
(5) Most media messages are organized to gain profit and/or power.

The key questions and core concepts of media literacy play out depending on age and development.
The Potential of Media Literacy

The benefits of media literacy continue to unfold, as the possibilities of media literacy continue to be explored and advanced. Educators view media literacy as necessary for “protecting” children, “informing” citizens, “demystifying” the media, and “creating” new forms of self-expression (Zaslow & Butler, 2002, p. 36). Media educators are interested in the potential of studying the media to help students construct concepts of self, and to empower students to face social problems (see Goodman, 2003; Hobbs, 2001; Tyner, 1991; Zaslow & Butler, 2002). Video technology, for instance, can help students address issues they could not deal with before. “Marginalized youth, equipped with a video camera, can transform issues that once hobbled their academic and social development – racism, crime, stereotypes, poverty – into opportunities for research, problem solving, and social action” (Walker, 2002, p. 45). Media education is used to confront inequalities, increase political participation, increase awareness about materialism and consumerism, and change students’ attitudes about racism, sexism, violence and homophobia (Hobbs, 2001). Whereas schools seldom offer the opportunity to discuss race, for example, students are able to incorporate this into curriculum. In the traditional classroom, textbooks constitute the “major mass media,” which tends to lack the cultural diversity in the United States (Tyner, 1991). Media education can enable the exploration of social justice issues in the classroom, allowing teachers and students to circumvent textbooks with other media.

Teachers must bear in mind that students, faculty, and parents may object to teachers imposing values on students, especially if the teacher is proselytizing, dogmatic, or authoritative. For this reason educators, such as Mary Galician (2004), view media literacy as neither necessarily political or ideological, but a pedagogical necessity to advance learning and critical thinking.

The author of The Rise and Fall of English, Robert Scholes argues that English courses should focus on the “meaning-making” process instead of “grammar, dialectic, and rhetoric” (Hobbs & Frost, 2003, p. 333). When students make meaning by deconstructing messages in the media, this critical thinking ability carries over into more traditional writings. The research is limited, but does suggests that “media literacy instruction improves students’ ability to identify main ideas in written, audio, and visual media” and that secondary media literacy curriculum in English courses improves reading and writing skills more than “traditional literature-based English curriculum” (Hobbs & Frost, 2003, p. 333). The improvement in students’ reading and writing skills relate to several factors. Media literacy connects language in school to that of students’ home cultures and lives outside of the classroom (see Goodman, 2003; Hobbs, 2001; Hobbs & Frost, 2003). Also, media literacy uses hands-on learning, peer-involvement, and collaborative group work, which engages students, and allows them “to translate their own voices into the language of the more formal, dominant culture” (Goodman, 2003, p. 59). With media used in the classroom, the power dynamics change, because the youth become experts (Hobbs, 2001). Studying the media explores contemporary issues, which are often more relevant and interesting to students. Also students are more motivated by visual and electronic texts, they are more interested and find more practical relevance in studying newspapers, television, movies, magazines, and websites (Hobbs, 2005; Schwarz, 2003).
Media literacy is encouraged to advance consumer education and the critical viewing of marketing and commercialism. Students are targeted by advertisers from an early age, by no choice of their own. Educators seek to develop ways for students to deconstruct the media’s persuasive techniques (see Hundley, 2004; Galician, 2004; Sharrarer, 2003). However, educators of media do not exaggerate the negative effects of media, or encourage the youth to be quarantined from media (Galician, 2004; Hobbs, 2001). For one, the media provides enjoyment, entertainment, and genuinely beneficial and helpful messages. Media is not necessarily negative, but people must be educated to view the media critically. From this Vygostkian perspective, students are not passive observers, or “helpless victims” of media, but bring their own experiences and participate actively while experiencing media (Hobbs, 2001; Zaslow & Butler, 2002). The media is so pervasive that parents will not be allowed to prevent their children from this influence.

Even if students were shut out from media’s influences at home, in schools students are bombarded with media messages, advertisements, and brand recognition efforts by large corporations (Molnar, 2002). Students who are media literate are better prepared to assess the techniques used to manipulate their manufactured wants through commercials and advertising. In this context, media literacy stands as “intellectual self-defense,” leading students away from corporate for-profit media (Torres & Mercado, 2005, p. 279). In Democracy & Education, John Dewey (1944) recalled that: “Plato once defined a slave as one who accepts from another the purposes which control his conduct” (p. 85). In this sense, media literacy works to counter the slave-like acceptance of media commercialism. Understanding how media influence what students believe is essential for a democratic society because for a society to function, citizens must be informed and know how their views, beliefs, and knowledge are influenced.

Criticism & Limitations of Media Education

Criticism of media literacy hinge on what is deemed “appropriate” for students to learn in public school. This criticism is twofold. First, the potential of forging into political and ideological waters may distance teachers from approaching the subject matter. Teachers are often uncomfortable when class discussions deal with complex issues that challenge students’ values and beliefs, such as racism or homophobia. In order for teachers to address these subject matters, they must confront their own values, which is difficult (Horn, 2003). Secondly, educators may not believe studying popular culture is serious enough to merit study in schools, or else fear that parents and community members may question the appropriateness of the content. How might a parent react if a student comes home talking about how a Simpson’s episode and a Mark Twain story help explain parody or satire? (Hobbs, 2001). Given that students are already inundated with media, spending more time with media in school may either seem counterproductive, or enforce students’ belief that TV watching is okay, and preferable to traditional print texts. Teachers’ biases reflect a concern that newer media will render reading and writing obsolete, however, this has not been supported by research (Hobbs & Frost, 2003).

The concept of media literacy itself challenges a widely held assumption that only print media is important in education. Print media often defines how literate or educated a person is (e.g., Daley, 2003; Semali, 2002; Silverblatt, 2001). Students are rarely taught to analyze and study the “language” of visual, audio and multi-media “texts,” even though these forms of media influence their lives. In the era of accountability, ushered in even more extensively with the No Child Left Behind Act, skeptics criticize why educators are teaching material that will not be adopted or evaluated with standardized tests (Bruce, 2005). The pressure of grades and adhering to specified curriculum increases the difficulty for teachers to implement media literacy, as more time is spent preparing for standardized tests, and less time for innovative curriculum. Media literacy is also criticized for lack of accountability. Little empirical research is based on how media literacy curricula affects students’ reading and writing skills in schools (Hobbs & Frost, 2003; Scharrer, 2002). Students are often directed towards creating their own form of media as a way of engaging media literacy. However, educators fear that students will merely mimic what they see on screens, therefore lose the practical and analytical skills they could develop by analyzing the media (Hobbs, 2001).

Finally, schools often lack the resources and training to start media education programs. Video and multimedia technology are expensive. Educators such as Steve Goodman (2003) recommend that students resort to play performances, role playing, skits, and more imaginative adaptations in place of expensive technology. Lack of trained, qualified teachers is another obstacle to moving media education forward in U.S. schools (Galician, 2003; Hobbs, 2001; Tyner, 1992). Teachers often lack the understanding of how to teach media literacy, and may not feel suited to address the curriculum. Educators themselves may not understand ways the
media influences viewers. Media education also gets a bad name when lackadaisical teachers kill time by playing films without connecting it to curriculum. Since media education is not emphasized in the United States, teachers cannot get certification to teach media literacy; therefore, they lack the development and resources to teach the subject matter (Goodman, 2003). Teachers are already busy educating and testing to mandated curriculum, and may be overwhelmed to take on additional material—especially when faculty are not trained to teach media literacy, must learn the material on their own, and must negotiate with the school in order to address the curriculum (Goodman, 2003). Teachers often readily assume that students know how to analyze the information that comes across various media, whereas media literacy advocates emphasize the importance of analyzing various media just as much, if not more so than written texts (see Daley, 2003; Hobbs & Frost, 2003; Semali, 2002; Tyner, 1992). Designing a curriculum based on media literacy is not an easy task.

Educators will need to seek imaginative ways to educate themselves and students to learn how to examine and evaluate media messages. For instance, college professor Heather Hundley (2004) wrote an ethnographic article after teaching 4th graders media education in a four-week unit. This unique collaboration brought the skills of a trained media expert into the public school system, and helped young students understand how media affects and influences their lives.

**Conclusion**

In the United States, the average student spends six-and-a-half hours with various media each day. While media may not have a direct impact on viewers, media’s long-term influence affects beliefs and attitudes, which impact behaviors. Since media have become the new dominant “texts” of youth, proponents of media literacy advocate for the expansion of literacy to include “the ability to access, analyze, evaluate, and create messages in a wide variety of forms” (Hobbs, 2005, p. 61). Guided by this definition of literacy, students critically examine forms of media, reflecting on the role media has on society and their own beliefs.

In the United States, the Center for Media Literacy traces the origins of contemporary media literacy to the 1960s. Based on the works of media philosopher, Marshall McLuhan, and Harvard professor, John Culkin, educators began exclusively training to understand effects of media. In the 1970s, educators led efforts to protect viewers against violent and inappropriate material. With a mandate to compete in the global marketplace, the 1980s emphasized computer literacy programs instead of efforts to engage critical viewing of media. During this time, students were increasingly becoming inundated with media messages. Although media literacy has struggled to flourish in the United States compared to other industrialized nations, since the 1990s there has been a proliferation of media education organizations, resource programs, federal grants, and higher educational programs.

According to the Center for Media Literacy, the conceptual content of media literacy programs engage students’ understanding of authorship, format, audience, content and motive by asking students to reflect on their understandings of critical questions: Who created this message? What creative techniques are used to attract my attention? How might others understand this message differently from me? What values and points of view are represented in, or omitted from, this message? Why is this message being sent? Educators approach media literacy programs depending on the age and developmental level of students. Whether younger students analyze advertisements on boxes of cereal, or high school students critique stereotypes perpetuated in popular magazines, the major objective is for students to critically analyze media they encounter in their daily lives.

Media education has empowered students to transform issues that affect them, providing students with new avenues for self-expression and giving voice to issues they could not deal with before, such as poverty, racism, crime, and stereotypes. While textbooks in traditional classrooms in the U.S. often do not address issues such as racism, sexism, and homophobia, media education can engage discussions of social issues because the textbooks no longer become the major text for students (e.g., Daley, 2003; Semali, 2002; Silverblatt, 2001). When the texts in classrooms shift to address various media, the power dynamics between students and teachers shift because students become the “experts.”

Research suggests the use of media literacy improves reading and writing skills, compared to “traditional literature-based English curriculum” (Hobbs & Frost, 2003, p. 350). Media literacy connects the language students use in school and to the language used outside of the classroom, and students are often more interested in visual and electronic texts. Since students are targeted by advertisers from a very early age, media literacy has embodied consumer education and critical viewing of marketing and commercialism. However, media educators acknowledge that media are not necessarily negative, but can be enjoyable and informative, given
that viewers can deconstruct media’s pervasive techniques.

Media literacy suffers from the widely held belief that only print media is worthwhile in schools. Many educators fail to see the practicality or appropriateness of studying media, given the amount of exposure students already have to media outside the classroom. The content material arising in media can also be controversial and uncomfortable for teachers. Most schools lack the training, resources, and expensive technology to implement media education programs. While media education is not a priority in the U.S., teachers cannot get certified to teach media literacy programs in K-12 public schools. Therefore, teachers are not prepared to teach the subject and often must take their own initiative to implement the curriculum.

In an era of accountability and mandatory testing, ushered in more extensively under the No Child Left Behind Act, skeptics are critical of addressing material that will not be evaluated on standardized tests. More empirical research is necessary to determine how media literacy affects students’ reading and writing skills. Although educators of media literacy must work with limited resources and take initiative to incorporate media education programs, educators in K-12 schools have sought unique collaborations with media professors to creatively expand the role of media literacy in public schools.

**Recommendations for Practice**

Media literacy as a subject matter should be integrated throughout public schools starting in early adolescence. During this time, children are bombarded with media messages, advertisements, and marketing campaigns designed to manipulate their thinking, beliefs, and values. Turning media consumption into the act of critical-thinking prepares students to live in a democratic society where informed decisions are based on how students interpret and view reality. Currently in the United States, media education is not nearly as validated as in Canada, Britain, and Australia.

Until the definition of literacy encompasses the ability to read and write in various forms of media, teachers are left to integrate media literacy into their curriculum development. Establishing collaborative learning and integrated curriculum units, and networking with media organizations are strategies to bring media education into the classroom. To implement media literacy curriculum, the Center for Media Literacy recommends:

1. **Start with your best, most enthused teachers.**

Increasing the understanding, visibility, and active support of media literacy is essential to establishing and implementing a media education program in public school. Collaborative learning and interdisciplinary units are effective ways to introduce media literacy across various curricula. Utilizing the skills, abilities, and interests of faculty is important to help teachers become familiar with technologies for constructing messages. Schools who have successfully implemented media literacy programs have relied on consultants, media coaches, and experts in the field who can guide teachers.

2. **Explore your state or local standards to see how teaching media literacy skills can support what you are already mandated to teach.**

As the Center for Media Literacy (2006) states, "Media literacy is not a new subject to teach but a new way to teach all subjects!" Most subjects directly relate to media education because media help us explain and relate to the world, ourselves, and each other. Media literacy standards are increasingly calling for "literacy" that incorporates inquiry-based media literacy skills. In any given subject matter, teachers should make use of media to meet curriculum standards, and to allow students opportunities to “access, analyze, evaluate, and create messages in a wide variety of forms” (Hobbs, 2005, p. 61).

3. **Acknowledge our “love/hate” relationship with media and popular culture.**

It’s easy for teachers to want to dismiss popular culture or disparage it. However, understanding popular culture can help teachers connect to students’ youth cultures. Using what is going on in the world, trends in advertising, conversations about TV shows, or whatever students are talking about, can be effective launching points for a lesson or activity. We want students to inquire, explore, and critically examine the world they live in – instead of ignoring, or dismissing the influences of popular culture in their lives.

4. **Create a reference resource center (or at least a shelf in the library) with background materials as well as teaching resources.**

Since educators are in an uphill battle to integrate media literacy, providing resources for the school can empower and encourage other teachers to get on board with media education. The Center for Media Literacy offers online catalogs of teaching materials that would be valuable to jumpstarting curriculum. For instance, the MediaLit Kit includes 25 classroom activities for K-12 media literacy. Building in time and opportunities for teachers to
share their understanding and resources is also appropriate to integrate media education, such as during teacher meetings and professional staff development trainings. Providing resources to the individual school, such as books and Internet sources on media literacy pedagogy and best practices, is effective to fostering media education from the grassroots level.


Teachers can feel isolated to try to implement media literacy content into their teaching. Connecting with other educators is helpful for educators to share information and learn from one another. For example, the Alliance for a Media Literate America (www.AMLAinfo.org) offers the National Media Education Conference every other year. Attending such events and reporting back to schools is one strategy for networking. Subscribing to e-letters, list-serves, and publications can be helpful for teachers to explore issues and to contribute to conversations. Workshops, panels, and presentations are increasingly offered at a state or national level for educators to engage media literacy.

While media education is becoming more recognized in the United States, public schools have not created a place for media education. So far, dedicated and committed teachers have taken the responsibility to engage this curriculum. Organizations such as Center for Media Literacy and Alliance for a Media Literate America are making media education easier and more accessible for teachers. Media advocacy organizations provide useful ways for educators to network, collaborate, and to create and design curriculum and lesson plans. Teaching training programs, professional development courses, and research-based pedagogical resources are necessary to prepare teachers for using media to engage, interest, and motivate students. Teachers should advocate for school districts to prioritize and allocate resources for media education programs, as well as multimedia technology. Podcasts, cameras, camcorders, and computers with media editing capabilities are powerful ways for students to create their own media. Teachers should also advocate for the accreditation of media education.

Currently, teachers cannot get certification to teach this subject matter and lack the development and resources to teach the subject material (Goodman, 2003). More teachers will have incentive to engage media education if the field is more validated by school districts, federal mandates, and by school policy goals. In the long term, standardized tests should reflect students’ ability to access, analyze, evaluate, and create messages in a wide variety of forms. Considering the emphasis on high-stakes testing in the No Child Left Behind Act, teachers have less time for innovative curriculum. Teachers have less incentive to engage lesson plans that fail to cover material on standardized tests.

Until media literacy is considered as important as other forms of literacy, teachers can use the strategies mentioned above to meet state curriculum standards and to find ways to provide opportunities for students to critically examine the pervasive techniques of media, the effects media have on their own lives, and the larger societal and cultural effects of media (DeFleur & Dennis, 1998; Galician, 2004; Goodman, 2003; Hobbs, 2001; Schwarz, 2003; Silverblatt, 2001). Until media literacy is recognized as a powerful way to teach students, teachers are best served collaborating with other teachers, media organizations, and experts in the field to employ strategies to engage media literacy in the individual classes they teach and within a school and district-wide level.

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Inmate, Student, Citizen: The Suggested Potential of the Classroom Teacher to Facilitate Successful Life Outcomes for Male Juveniles Transitioning out of Secure Confinement

by Jennifer Clement

Recent studies have indicated that male juveniles transitioning out of secure confinement who attend school full time after release are significantly less likely to re-offend, suggesting the potential of schools to mitigate the cycle of recidivism among juvenile offenders. As a result of the scarcity of research on transitioning students, curricular strategies for populations disproportionately represented within the juvenile offending population that have also been found effective with incarcerated juveniles are reviewed. Research on the use of guided notes composes a substantial portion of the literature review. It is suggested that much of the literature on at-risk youth can be applied toward the transitioning student and that basic knowledge of juvenile justice system trends and demographics can also inform a successful educational intervention.

Introduction

Teachers of middle or secondary education will very likely encounter students who have had contact with the juvenile justice system during their career. These students often have not had positive experiences within the public school system and may be considered at-risk of school failure. In an attempt to counteract negative consequences for delinquent students, the following was written so that the mainstream public education teacher may become familiarized with the juvenile justice system and the youth who pass through said system. Male juveniles transitioning out of secure confinement were chosen as the specific subpopulation of interest because, in addition to being at a high risk of failing academically, these students often face fear and stigmatization from both the school and the community, compounding barriers to rehabilitation.

Students who have had formal contact with the juvenile justice system, particularly those who have experienced a period of secure confinement (otherwise termed an out-of-home placement), are referred to as either juvenile delinquents or juvenile offenders in the literature and by relevant legal bodies. Both terms describe a person convicted of a legal infraction (defined as a crime in adult court, often termed a delinquent act in juvenile court) before age eighteen. One is likely to encounter either term when exposed to the juvenile justice system and research related to the field, and so the terms delinquent and offender will be used interchangeably herein. Section one of the forthcoming literature review, however, will discuss the historical and ideological differences embodied in both terms. As a reflection of the reformist stance inherent in a paper seeking strategies to facilitate academic success for transitioning students, the term delinquent has been favored over offender when possible.

The range of crimes committed by a student who has experienced secure confinement within the juvenile justice system varies greatly, from offenses legal in adulthood to serious violent crimes such as rape and murder. Depending on the crime(s) committed, juveniles may have spent only a few days in secure confinement or they may have had years of exposure to it. Secure confinement for juveniles can take many forms and generally falls into one of two categories: residential or community. Residential confinement includes detention at a juvenile hall, confinement within a training school, or residence in a wilderness or boot camp. Community confinement includes such measures as group homes (which come in many different forms), house arrest, and boarding schools.

The majority of juveniles leaving secure confinement will be placed on probation. Probationary programs vary widely, but all offer some degree of supervision for transitioning juveniles (Siegel, 2002). As the aftercare model of probationary services continues to expand, an increasing number of systemic changes have been enacted at the macro level to traditional probation delivery systems. Within the domain of education, changes have primarily concentrated on increasing communication between schools and the juvenile justice system, increasing access to alternative schooling methods, and to expanding treatment and services options for youth. Many of these changes have shown positive results and may have components that affect the classroom teacher. Literature referenced within defines the transition period as the first twelve months after release from secure confinement, and consequentially a majority
of juveniles will be under probationary jurisdiction while in the transition period.

This paper focuses on male juvenile offenders who are transitioning out of secure confinement rather than females because they are a larger population who may be uniquely at risk of being targeted or ignored because of stigmatization and fear. This does not mean that the issue of female juvenile delinquency is any less important or worthy of study from the classroom teacher’s perspective. In fact, many demographical trends and curricular strategies described herein that affect male offenders also may affect or describe female offenders. Yet both segments of the offending population have their own particular characteristics, and a focus on the male offender was chosen to narrow the field of inquiry.

Male juvenile delinquents transitioning out of secure confinement often have a history of negative encounters with the school system. Once returned to school after a period of secure confinement, these students frequently do not do well. Part of the relationship between delinquent students and school success may be affected by the demographic characteristics of juveniles who face out of home placements. As the literature review will discuss, the transitioning student population is likely to be disproportionately composed of youth of color and include large numbers of poor youth as well as those with histories of having received special education services.

Students of color, low income and special education students experience higher rates of disciplinary infractions and a stronger disconnect between their home and school cultures, all factors that can lead to negative experiences within the school (Delpit, 2006; Eith, 2005; Spring, 2004). The Office of Juvenile Justice and Delinquency Prevention has documented that youth who are not in school or the labor force are at high risk for committing delinquent and criminal behavior (Ingersoll & LeBoeuf, 1997). The connection between success at school, delinquency, and recidivism, widely referred to as the school-to-prison pipeline, is a main component of the following inquiry. Pathways of the school-to-prison pipeline represent well-documented trends that suggest the school system, and by extension, educators, can contribute to or work against delinquency in juveniles.

Male offenders transitioning out of secure confinement often experience negative outcomes at the school level, but recent research, much of it fueled by new probationary methods in juvenile justice, points to school achievement and attendance as a strong factor in decreased recidivism. Particularly salient are two large quantitative studies that will be examined in detail during the course of the following literature review. These studies concluded that youth attending school or working full time twelve months after release were no longer at risk of recidivism.

Results from these studies suggest the important role schools can play in reducing recidivism. Yet maintaining a full time level of academic engagement may be difficult for the transitioning student to achieve. Contributors to this problem include the likelihood that transitioning youth have significant academic gaps and will be experiencing a myriad of compounding risk factors amongst peer, family, and community groups (Mazzotti & Higgins, 2006; Keeley, 2006). Because of these conditions, the population of interest often experiences a high recidivism rate, especially when treatment is not sufficiently paired with punishment (Zhang & Zhang, 2005). Some juvenile offenders become adult criminals, and the financial as well as the societal costs of juvenile crime are large and well documented within the literature on juvenile delinquency and by the Department of Justice.

Despite the correlation between academic success, delinquency, and recidivism, many transition experiences for juveniles are characterized by a lack of coordination between the school and the juvenile justice system and, ultimately, a lack of success for the transitioning juvenile (Mazzotti & Higgins, 2006; Keeley, 2006; Ingersoll & LeBoeuf, 1997). In an attempt to counteract this missed opportunity for intervention, the following is an exploration that seeks to address recidivism by increasing academic success for transitioning students through the use of curricular strategies empirically proven effective for the population of interest. To accomplish this task in light of sparse research on the population of interest, the literature review to follow looks at the transitioning student under a holistic lens by examining the basic structure and historical trajectory of the juvenile justice system, scrutinizing how the school-to-prison pipeline operates within the context of disproportionality, and delimiting curricular strategies proven effective at increasing academic achievement for the transitioning student in order to counteract negative results for those youth as well as for the wider society.

Review of the Literature

Understanding Juvenile Delinquency: Historc and Political Themes

A separate justice system was created for juveniles in Illinois in 1899 (Parry, 2005). In the Juvenile Justice Sourcebook, Albert Roberts (2004)
chronicles how, by 1923, all states except Connecticut and Wyoming had adopted their own juvenile justice systems. In the same text Roberts discusses how the legal precedent for a juvenile justice system in the United States came from English courts, which established a principle of *parens patriae* in 1772. *Parens patriae* evoked the right of the Crown to intervene in family relations to serve the welfare of the child. Yet while it had roots in English law, Roberts maintains that the juvenile justice system created in Illinois and the interest in juveniles has been populated by social work professionals, lawyers, and other humanitarians, including Jane Addams, who were concerned about the treatment of juveniles.

As Parry’s *Essential Readings in Juvenile Justice* (2005) outlines, in its infancy the juvenile justice system worked with both delinquent and neglected children. The system operated on the stated belief that juveniles were capable of rehabilitation, and the vocabulary surrounding juvenile crime reflected that. Hence, juveniles were known as delinquents, not criminals, who committed delinquent acts instead of crimes and who were adjudicated instead of found guilty. Parry ultimately concludes that some of the ideas and practices of the juvenile justice system had positive, paternal aspects. Yet he notes that moralistic overtones the system had inherited from the child-saving movement, including the lack of traditional protections under the law for juveniles accused of crimes and the large amounts of discretion afforded to judges within the system eventually became a concern for the Supreme Court. Parry discusses how these issues resulted in a series of legal cases that spanned nine years from 1966 to 1975. During this time the court handed down five decisions affecting the juvenile justice system, creating a set of guidelines that established the basic Constitutional parameters for modern juvenile justice proceedings in the United States.

The guidelines set forth by the court granted juveniles more rights and allowed for less discretion on the part of judges, a move that attempted to correct the variability in sentencing within the juvenile justice system. Sims and Preston (2006) note in their text that another milestone occurred in 1974, when the Juvenile Justice and Delinquency Act was passed. This legislation further defined the rights of delinquents and mandated their separation from adult criminals. The act also provided for the transfer of status offenders to family court. The juvenile justice system would now only deal with youth accused of committing crimes. The Office of Juvenile Justice and Delinquency Prevention (OJJDP), an entity of the federal government and a major source of juvenile justice statistics, was created from the legislation as well. Parry (2005) notes that these changes created an atmosphere in which the system “moved away from the informal, non-adversarial, and predominantly rehabilitative orientation advocated by the child-savers, and toward implementation of due process safeguards and sanctions more in keeping with the severity of the offense rather than the perceived treatment needs of the offender” (p. 74).

The juvenile justice system remains separate and somewhat distinct from the adult justice system, but many authors, including Parry (2004, 2005), Sims & Preston (2006), Roberts, Zhang & Zhang (2005) and others, feel that punishment and accountability, rather than treatment and rehabilitation, has defined the reinvented juvenile justice system. They point to a shift in ideology, and a resultant shift in terminology as words like juvenile and offender appear along with other monikers of delinquent and youth to support the evidence of a punitive trend. As reorganization of the juvenile justice system has progressed, fears about juvenile super-predators (Sims & Preston, 2006) and a general suspicion of the effectiveness of probation and rehabilitation programs (Zhang & Zhang, 2005) have led to longer sentences, an increase in secure placements, and an increase in the number of juvenile offenders being waived to adult court (Sims & Preston, 2006; Roberts, 2004; Puzzanchera, 2003). Figure 1 delineates longitudinal trends in juvenile court cases. While other indications in Snyder and Sickmund’s (2006) report suggest a tempering in these trends, results are mixed with an 8% decrease in the population of offenders in custody from 1997-2003 occurring within the context of an overall increase in the detained delinquency population from 1991-2003 of 38%.

The “get tough” trend has occurred within the context of several patterns that exist within the juvenile justice system. Rates of juvenile delinquency are consistently marked with racial and ethnic disproportionality (Penn, Greene, & Gabbidon, 2006; Balfanz, Spiridakis, Neild, & Legters, 2003). While ethnically and racially marginalized youth make up one third of the entire U.S. population, they make up two thirds of the juvenile justice population. Statistically, the majority of youth who enter the juvenile justice system are African American and live in poverty (Mazzotti & Higgins, 2006). Minority
Figure 1.
*Juvenile courts handled four times as many delinquency cases in 2002 as in 1980. Taken from Snyder and Sickmund (2006).*

Youth are more likely to be arrested, and once in the juvenile justice system, they are more likely to have their cases stand, more likely to be waived to adult court, more likely to be found guilty, and more likely to be placed in secure confinement than non-minority youth (Penn et al., 2006). Snyder and Sickmund’s *Juvenile Offenders and Victims: 2006 National Report* (2006) indicates that African American/Black youth in particular continue to “account for a disproportionate share of cases at all stages of case processing” (p. 176). Juveniles with low socio-economic status are also overrepresented in the delinquent population (Mazzotti & Higgins, 2006; Christie et al., 2005), as are Learning Disabled (LD) and Behaviorally Disabled (BD) youth (Garfinkel & Nelson, 2004; Mazzotti & Higgins, 2006).

When the “get tough” mindset and trends in disproportionality intersect in juvenile justice proceedings, the result is often a judicial order of secure confinement (Penn et al., 2006; Sims & Preston, 2006). Secure confinement can last only a few days or may encompass several years. Some youth are confined in juvenile institutions until they reach adulthood and may even continue to be incarcerated in adult prisons after they come of age (Siegel, 2002). Adverse psychosocial effects, including exposure to violence and rape, have been documented in several first hand accounts of life within juvenile confinement institutions (Davis, Jenkins, & Hunt, 2002; Guilloid, 2001; Stoltie, 1999).

**Probation and Recidivism**

The role of probation services has been greatly expanded since the implementation of the modern juvenile justice system with varying degrees of success (Lipsey, Wilson, & Cothern, 2000). Probation may have a net widening effect of sending delinquents back to secure confinement for a crime that would ordinarily go undetected or uncharged among the regular population (Macallair & Males, 2004). Some evidence suggests that intensive probation programs, often referred to as part of the “Aftercare” model, connect juveniles with much needed services (Gies, 2003) while others see the measures as extensions of the “get tough” mentality, primarily put in place to increase societal protection (Sims & Preston, 2006).

Increasingly, secure confinement and punitive measures including probation programs, especially those that don’t offer services but merely monitor and confine, have been shown to be ineffective (Zhang & Zhang, 2005; Lipsey, Wilson & Cothern, 2000). Some juveniles, particularly those who have early histories of antisocial and delinquent behavior and who have multiple risk factors, commit many delinquent acts as juveniles and go on to become criminals as adults. This 6–8% of juveniles has been found to commit 52–70% percent of juvenile crimes (Zhang & Zhang, 2005; Farrington, 2005). Partially due to the “8% Problem,” recidivism rates for juveniles are high, with estimates between 30%-55% for all cases (Washington Institute for Public Policy, 2006; Bullis, Yovanoff, & Havel, 2002; Gies, 2003; Christian, 2003), a number which includes a 50% recidivism rate for untreated serious offenders (Gies, 2003). Despite these trends, many juveniles don’t recidivate and even among those that do, many eventually go on to “mature out” of the juvenile justice system and adjust into a non-criminal adult life (Zhang & Zhang, 2005; Siegel, 2002).

Evidence suggests that recent punitive reforms in the juvenile justice system may be characterized by questionable effectiveness and a lack of fairness. As a result of potentially negative outcomes for youth within the juvenile justice system, Mazzotti and
Higgins (2006) have suggested that other agents in the delinquent’s life outside of the justice system act to assist the youth in developing a pro-social life path. The literature on delinquency prevention and intervention uses conceptions of risk and protective factors to understand, predict, and treat delinquent behavior in juveniles. Broadly stated, risk factors are familial, educational, peer and community related mechanisms that put the juvenile at risk for delinquency. Protective factors are familial, educational, peer and community factors that guard against delinquency. Within each of the categories listed above, several different possible conditions that may protect or endanger the youth apply (Christle, Jolivette, and Nelson, 2005; Eith, 2005; Woodruff, 1998).

Many delinquents, particularly those who have been in secure confinement, have multiple risk factors (Zhang & Zhang, 2005; Gies, 2003; Siegel, 2002).

Understanding and Affecting the School-to-Prison Pipeline

While it makes sense to reduce all risk factors as much as possible when treating the delinquent, risk and protective factors that are a part of the juveniles’ academic and school life are most salient to the classroom teacher. The classroom teacher can help to foster the academic success of male juvenile offenders transitioning out of secure confinement (Mazzotti & Higgins, 2006; Wald & Losen, 2003; Ingersoll & LeBoeuf, 1997).

School failure has been strongly correlated to delinquency in adolescents (Mazzotti & Higgins, 2006; Bullis, Yovanoff, Mueller, & Havel, 2002). The disproportionality of minorities and the overrepresentation of disabled youth within the juvenile offending population may be two factors contributing to high rates of school failure among these youth. Minority, low socioeconomic status, and disabled youth have higher rates of suspension, expulsion, difference between grade level and age, and lower academic proficiency levels as measured by standardized test scores (Penn, Greene, & Gabbidon, 2006; Clement, 2006; Sheridan & Steele-Dadzie, 2005; Sautner, 2001). Suspension and expulsion are educational risk factors for youth, as is attendance at large, urban schools with high rates of violence. Minority and low socioeconomic status youth in particular make up a large proportion of the student body in these schools, which tend to be characterized by less caring school climates, less staff to student interaction, and facilities that are in higher stages of disrepair than schools in other areas. Student populations exposed to these conditions often have lower rates of school attachment and bonding than other students (Mazzotti & Higgins, 2006; Christie, Jolivette, & Nelson, 2005; Eith, 2005; Balfanz et al., 2003). High rates of school failure for the juvenile delinquent population mean that a majority of youths transitioning out of secure confinement have long histories of negative experiences with school and significant academic gaps (Christle et al., 2005; Zabel & Nigro, 2001).

While many juveniles do not or cannot (because of their age) return to the K-12 public school system upon release from confinement, some juveniles plan while still institutionalized to return to school when their stay in secure confinement has ended (Keeley, 2006; Wald & Losen, 2003). Many will be ordered to do so as part of their probationary conditions. Attendance in school is a common requirement of juvenile probation (Siegel, 2002). Some juveniles will attend alternative schools upon release and may even complete their secondary education in an alternative setting. Others may only transition through alternative schooling programs on their way to the general public school population (O’Sullivan, Rose, & Murphy, 2001; Stephens & Arnette, 2000; Ingersoll & LeBoeuf, 1997), and many will go straight from secure confinement to the general public school system (Mazzotti & Higgins, 2006; Baltodano, Platt, & Roberts, 2005).

The TRACS Studies

The importance of educational engagement in the transitioning juvenile has been underscored by recent recidivism studies (Bullis, Yovanoff, & Havel, 2004; Bullis et al., 2002), which have shown a correlation between engagement with either school or work and reduced recidivism rates. One of the largest and newest research inquiries on the topic is offered by Bullis, Yovanoff, and Havel (2004), who conducted a five year longitudinal study referred to as Transition Research on Adjudicated Youth in Community Settings (TRACS). The authors found that the juveniles studied who were engaged (engagement, for the purposes of this study, is defined as a youth who is living within the community in either an unsupported or supported situation and either employed full time or enrolled in a school program full time, or working part time and going to school part time) six months after release were 2.44 times less likely to return to the Oregon Youth Authority within the first twelve months after release. Other findings indicated that participants who were engaged six months after release tended to be engaged twelve months after release as well. Special education status was found to have a statistically significant association with returning to incarceration in the first six months after release.

If a juvenile continued to be engaged twelve months after release, he was found to no longer be a
recidivist risk. These observations led Bullis, Yovanoff, and Havel to categorize the first twelve months after release as a “critical service juncture” (2004, p. 18). When youth left the facility and immediately began working or going to school full time, they were significantly less likely to re-offend. The study did not show that the severity of the crime or other factors offset engagement-recidivism predictors.

Sims & Preston (2006), Eith (2005), and Christie, Jolivette, & Nelson (2005) as well as other authors also note that there is a correlation between school failure and increased delinquency and between school attendance and decreased recidivism. Given this, attempts to intervene at the school level hold potential for having an effect on the juvenile crime problem.

Transitioning Delinquents and Public Schools: A Teacher’s Toolkit

Many juveniles in secure confinement receive an education, and some may benefit from that education in terms of academic confidence and skills (Cole, 2002; Keeley, 2006), but assessments on the quality of juvenile education programs vary (Foley & Gao, 2002). Regardless of the quality of education received in confinement, students transitioning into public schools have several barriers to overcome. Systemically, this part of the transition process is often marked by a lack of communication between the justice and educational systems that can impede the transfer of school records and information about the student. Probation-based requirements and justice system aftercare programs may offset this some. To combat this, at the school level, some schools have installed programs to coordinate communication among the various agencies and institutions charged with looking after the juvenile (Mazzotti & Higgins, 2006; Stephens & Arnette, 2000; Ingersoll & LeBoeuf, 1997).

Issues specific to the offending population may also complicate academic transition for juveniles. After secure confinement, the juvenile may have grown accustomed to a highly regimented structure with plentiful supervision (Stepsn & Arnette, 2000). The public school, particularly if it is large, can be a disorientating and unsettling environment for the transitioning juvenile (Eith, 2005). Compounding risk factors such as peer group deviance and neighborhood disorganization are strong influences on the youth that may facilitate a return to delinquency (Siegel, 2002; Woodruff, 1998), and stigmatization as well as misunderstanding about the juvenile offender within the school impedes the youth’s ability to use school as a protective factor (Mazzotti & Higgins, 2006; Stephens & Arnette, 2000).

Transitioning students may find themselves stigmatized as “bad kids.” As a result, they may be subject to a disproportionate amount of disciplinary action, including suspension and expulsion, especially if other disciplinary risk factors such as minority, socioeconomic, or disabled status are present (Eith, 2005; Wald & Losen, 2003; Sautner, 2001). Quite often, the transitioning juvenile is in a worse position than the average student. As discussed above, many delinquents also possess risk-factors related to their families, communities, and peer groups. In addition, some may have mental illnesses and psychological issues relating to abuse, neglect, and exposure to violence (Garfinkel & Nelson, 2004).

Curricular Strategies and Transitioning Youth Research

Though available research indicates that school is an important factor in the transition and rehabilitation of the juvenile offending population, a dearth of information is available about educational strategies for transitioning youth. A comprehensive search of the ERIC database, along with a manual search of leading journals, including the Journal of Correctional Education, Journal of Reclaiming Children & Youth, and Exceptional Children revealed little research that specifically examined educational strategies for the student population of interest. This quest indicated that educational research on juvenile offenders has primarily focused on correctional education and on factors in general education that lead to delinquency (Eith, 2005; Lundman, 2001). Research on transitioning and recidivist youth has primarily focused on probation and aftercare services orchestrated through the justice system or community programs (Gies, 2003; Lipsey, Wilson, & Cothren, 2000). As a result, the pedagogic strategies section of this review examined curricular strategies proven effective for youths who are disproportionately represented within the juvenile justice system, including disabled youths and those with significant academic gaps. Studies examining strategies effective with incarcerated youths were also examined.

Implied Strategies

Several curricular strategies emerged through research that had promising implications for the transitioning student. The most prominently discussed technique in this review will be guided notes. While the effectiveness of the use of guided notes has only been examined in a handful of studies (Anderson, Yilmaz, & Wasburn-Moses, 2004; Ehrhardt, Hamilton, Seibert, Gardner, & Talbert-Johnson, 2003; Gardner, Jones, Greenfield & Fribley,
behaviorally disabled (BD) students, and students with language difficulties, as well as with regular and gifted students. Most research, including Hamilton, Seibert, Gardner, & Talbert-Johnson’s (2000) study of incarcerated juveniles, concentrates on the effectiveness of guided notes with LD and BD students. Several conditions suggest that guided notes may be an effective intervention technique for the transitioning student: high rates of learning and behavioral disorders, a high proportion of pronounced academic gaps, low rates of literacy, variety within the population (suggesting the need for a strategy that is broadly effective), and the need for structure during the transition period.

Studies about guided notes emerged first out of Ohio State University as masters and doctoral theses in the late 1980’s (Courson, 1989; Kline, 1986). Citing an increase in the mainstreaming trend for special education students, these authors found that the use of guided notes functioned as a tool LD and BD students could employ within general education classrooms. Landmark studies published by Lazarus (1988, 1991, 1993) agreed with the conclusions being reached at Ohio State. Lazarus’ studies established guided notes as a promising practice that could raise test scores and student participation in the classroom. From this research emerged the definition of guided notes as “the skeleton outline that contains the main ideas and related concepts of a lecture or reading, as well as space for students to complete their responses to material” (Lazarus, 1988), which has been used as a guiding classification for subsequent research.

Procedures for creating and using guided notes vary. Research has investigated whether short or long form guided notes are more effective (Anderson, Yilmaz & Wasburn-Moses, 2004; Sweeney et al., 1999) and whether the use of review time immediately following guided notes conditions increases their effectiveness (Lazarus, 1991, 1993). Sweeney et al. (1999) found that short form guided notes lead to higher retention and improved quiz scores than long form methods. These authors also found that students in their study preferred using short form guided notes over the long form version devised for the study. Hamilton et al.’s study (2000) of incarcerated juveniles’ utilized short form guided notes. The authors of that study found that these notes were effective in increasing quiz scores and on task behaviors.

Two studies by Lazarus (1991, 1993) have compared academic achievement reached through the use of guided notes alone with achievement levels reached when students review their notes following the teacher’s presentation. In both cases, Lazarus found that guided notes conditions led to increased quiz scores when compared to the alternative of having students take notes on their own, but that guided notes with review conditions increased quiz scores considerably over guided notes only conditions. Under guided notes with review conditions, students with LD achieved at a level commensurate with that of their non-disabled peers.

All available research to date has shown the use of guided notes to be superior over allowing students to take their own notes as they normally would. Yet a study by Mastropieri et al. (2003) found that this method was not as effective in increasing the test scores of students with disabilities as the peer tutoring method. When the students in this study learned world history through class wide peer tutoring, they performed better on subsequent testing than when a guided notes with review procedure was used. Students also reported enjoying the peer tutoring method more than guided notes conditions.

A note of caution is advisable here. This paper hopes to serve as an introduction to the transitioning student for the classroom teacher. This inquiry does not propose to fully cover the literature on note taking in general, and the reader may be advised to examine note taking research and theory in conjunction with curricular development efforts for transitioning students. The practice of note taking accommodations is questioned within the professional literature (Hughes & Surtisky, 1993), but concerns about the note taking abilities of students is also a common theme (Brown, 2005; Titworth, 2004). The reader is advised to investigate the research on student note taking for the sake of all their students in conjunction with their inquiry on students in transition.

Guided notes have been proven to increase academic achievement for all students, including populations that closely mirror the population of interest in this paper. Guided notes require no drastic modification to the most used classroom procedures, and are unobtrusive (Lazarus, 1991, 1993). When guided notes are given to the whole class, delinquents avoid further stigmatization yet may reap substantial benefits (Hamilton et al., 2000; Sweeney et al., 1999). In addition, the use of guided notes is relatively simple and inexpensive (Lazarus, 1996). Still, guided notes may not be the only or even the most effective method to foster academic success for the transitioning juvenile offender, and there are a...
relatively low number of studies on the use of guided notes.

Another strategy of interest is literacy interventions. Leone, Krezmein, Mason, and Meisel (2005) performed a meta-analysis of several studies conducted with struggling adolescent readers and secondary students with learning disabilities. In the study, the authors note that Project READ long ago established the average reading ability of incarcerated adolescents at the fourth grade level. Project READ results also found that more than a third were illiterate. The authors note there is evidence that these levels have increased since the Project READ survey was conducted. The majority of detained and committed youth have moderate to severe academic skill deficits and are disproportionately significantly below grade level in basic literacy skills. Youth with pronounced reading difficulties are vulnerable to marginalization in their schools and at a life long risk of involvement in the juvenile and criminal justice systems (Coulter, 2004).

Leone et al. (2005) discuss several studies that have shown the Corrective Reading Program to be successful in increasing the literacy skills of incarcerated adolescents. In addition to these sources, Coulter’s (2004) study corroborated what Leone et al. (2005) found to be true in their analysis: that implementation of the Corrective Reading program can raise literacy rates of incarcerated juveniles. Studies of the Corrective Reading Program involved juveniles spending several hours a week over the period of several weeks one-on-one with an adult. While time may be a barrier for the general education teacher, the method is structured around the use of a novel of appropriate reading level as its text and therefore can be implemented using existing classroom materials.

Coulter’s (2004) results showed passage reading and comprehension skill increases consistent with nine months of instruction for each month of literacy intervention. Students received varying numbers of tutoring sessions due to systematic variables. Coulter found that the more tutoring sessions student’s received the more improvement in literacy skills they experienced. Given these findings, Coulter concluded that substantial gains in reading could be achieved in the relatively short time span of a two to three week intervention using materials readily available in the classroom. However, Coulter cautions that she was unable to determine whether the growth students experienced was a result of the structure of the Corrective Reading Program, the outcome of time spent on task or the influence of one-to-one tutoring.

While this review has primarily focused on the use of guided notes, and, to a lesser extent, a structured approach to increase adolescent literacy referred to as the Corrective Reading Program, to promote academic success for juveniles transitioning out of secure confinement, several other techniques have shown effectiveness as well. Methods encountered through research on this literature review are organized in Table 1.

While not the focus of this review, an understanding of psychosocial demographics, including language processing deficits (Katsiyannis, Zhang, Barrett, & Flaska, 2004; Smith and Griffin, 2002) and characteristics of development and depression (Coll, Thobro, & Haas, 2004), which have a direct effect on the education of the juvenile are also important for the educator to examine.

Conclusions

It has long been understood that academic success can cushion the force of compounding risk factors just as educational failure can significantly predicate delinquency and recidivism. The TRACS studies legitimize this conjuncture as relevant for the student transitioning from secure confinement. Intended for the concerned educator, the literature review above discusses the demographics of youth who become involved with the juvenile justice system, especially as those factors relate to their schooling experience. The composition of youth within the juvenile justice system is informed by an investigation of ideologies such as the presence of a “get tough” mentality, and subsequent actions of various components within that system, such as orders to secure confinement and the conditions of that confinement. Given high recidivism rates and educational outcomes for these youth, research indicating the importance of the transition period and the role education can play in what Bullis, Yovanoff, and Havel (2004) have termed the “critical service juncture” is highlighted. This investigation was both a starting point and a justification for a dialogue that sought to illuminate curricular strategies teachers can employ to foster academic success for the transitioning student, as academic success has consistently been positively linked to reduced recidivism.

The variety of techniques suggested in the chart on the latter pages of the literature review, along with an understanding of the research gap that may exist, underscores the necessity of being knowledgeable about the demographics of the juvenile offending population and the individual situation of any given
### Strategies for Juveniles Transitioning out of Secure Confinement.

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<td>Penn et al., 2006; Christle et al, 2005; Cole, 2002; Stephens &amp; Arnette, 2000; Ingersoll &amp; LeBoeuf, 1997</td>
<td>Curriculum relevant to the juvenile’s life including culturally relevant curriculum</td>
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<td>Christle et al., 2005</td>
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<tr>
<td>Christle et al., 2005</td>
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</table>

As noted by Belshaw and Kritsonis (2006), the classroom teacher’s knowledge about probation requirements and services can enhance the effectiveness of those requirements and services, and this may help to foster the juvenile’s academic achievement. Several authors (Mazzotti & Higgins, 2006; Sheridan & Steele-Dadzie, 2005; Stephens & Arnette, 2000) recommend that teachers become knowledgeable in understanding the juvenile justice system and the risk factors common in those who are formally processed by the system in order to better serve their students, and the TRACS studies suggest that the fostering of academic success for this population may go a long way toward reducing recidivism.

As the introduction and the first part of the literature review illuminated, the recidivism problem within the juvenile justice system is large and has major implications for public policy and societal well being. The strong school-to-prison pipeline trend touched upon herein underscores the responsibility of the school to help prevent delinquency and recidivism. Yet despite the importance of the problem and the school’s ability to affect it positively, the body of research on fostering academic success for male juveniles transitioning out...
of secure confinement is sparse, as are empirical studies on educational strategies for this population.

That being said, this paper sought to immediately address the lack of academic success for transitioning juveniles by reviewing curricular strategies that have shown success in similar populations. Academic success can be achieved by utilizing proven curriculum strategies, maintaining an optimal classroom climate, advocating for the transitioning student, using effective, non-punitive discipline, and communicating with parents and other significant adults to the juvenile’s rehabilitation including probation officers, mentors, social service workers and counselors (Mazzotti & Higgins, 2006; Eith, 2005; Ingersoll & LeBoeuf, 1997). One way a teacher can use knowledge of the male juvenile offending population is to integrate specific help proven for similar populations such as is found through the use of guided notes (Hamilton, Seibert, Gardner, & Talbert-Johnson, 2000; Ingersoll & LeBoeuf, 1997; Lazarus, 1993).

Guided notes were the method of primary consideration in the curricular strategies portion of the literature review because they have been shown to foster the academic success of many different student populations including incarcerated juveniles and are cost effective as well as easy to integrate. Literacy interventions modeled after the Corrective Reading Program were also reviewed, and subsequent research should be done to investigate the probability and promise of both interventions with the transitioning student population. Intended as a preliminary guiding point for educators to understand an at-risk segment of their student body, it is hoped that negative trends in educational attainment among the transitioning student population can be tempered through intervention enacted at the classroom level. Given the strong relationship between delinquency and academic achievement, more intensive research, including field experiments, should be done so that educators and justice personnel can better understand the critical transition period and so that a tool kit of academic success strategies for the transitioning student can be built.

Implications for Practice

A key component to school engagement and academic success is the classroom experience due to the amount of time students spend there during an average school day. Implementing effective curricular strategies for the transitioning student can enable the classroom teacher to individually and immediately foster the academic success of that student. Teacher advocacy for positive systems change and empowerment of the transitioning youth can be an essential component to this success. Literature on the school-to-prison pipeline suggests that the restructuring of school environments and disciplinary procedures, as well as the promotion of a positive, caring atmosphere, could be powerful change agents for at-risk and delinquent youth. The school-to-prison pipeline represents a worrisome trend that all public school teachers should familiarize themselves with, especially the teacher who is preparing to provide instruction for a student transitioning out of secure confinement.

Given the dearth of research on effective curricular strategies for the transitioning student, the use of strategies that have been proven effective in populations that are disproportionately represented in the juvenile offending population is necessary. Strategies such as the use of guided notes or the implementation of the Corrective Reading Program could be promising in fostering academic success for the transitioning student. Teachers may also want to examine the literature surrounding at-risk youth as much of the research attempts to mitigate delinquent outcomes and therefore may be helpful in decreasing the recidivism rate of transitioning offenders.

An understanding of major patterns and demographics within the juvenile justice system can serve as a good inquiry point at which to begin considering the needs of individual students transitioning out of secure confinement and into the public school system. Special circumstances unique to the transition period may affect the domain of the classroom. For example, probationary programs may pose restrictions or an extra time commitment on a transitioning student, they may be enhanced by effective communication with the school, and they may have components (such as mentoring programs) that can act as a resource for the teacher. Issues currently affecting the student population of interest may also include restitution, psychological after effects of incarceration, and the effects of living arrangement transitions. These factors will fluctuate depending on the severity and context of the juvenile’s delinquent act and the time spent in secure confinement. A complete investigation of all is beyond the scope of this paper, but an educator’s awareness of their existence should help to foster understanding and assist further enquiry.

Perhaps the most significant implication for practice to be had from this research is an understanding of the complexity involved in the transitioning student’s experience. Many authors touched on the need to know the academic and developmental needs of individual transitioning students in order to serve their diverse needs best.

The transition period has unique characteristics that may make academic success more probable than
other periods of an at-risk student’s academic career. Keeley’s (2006) study found that only two variables produced statistically significant results when it came to predicting adjudicated youth’s return to school after secure confinement: student age upon release and student plans to return to school before release. Probationary programs may also mandate school attendance. As a result of the distinctive conditions created by secure confinement and its subsequent transition, teachers may find unique space in which to intervene in the classroom and at the systems level for students who are statistically at a high risk of negative life outcomes. Given the economic and social costs of criminal behavior (Siegel, 2002; Sims & Preston, 2006), attempts to stem the tide of recidivism are important not only for the delinquent himself but for the wider community as well.

References


Dropping Out:  
Who Is Doing It, Why, and Effective Counter-Strategies  

by Richard Coker

Large urban school districts and students of color have higher dropout rates than elsewhere in the country, giving rise to the term “at-risk” for these students. This paper examines what “at-risk” means, why some students drop out when others do not, and how the dichotomy of oppositional identity and stereotype threat versus resilience and motivation can inform dropout prevention strategies. Culturally relevant, student-centered instruction and holistic involvement in the lives of the student and the family can help foster resilience in students when these strategies are specifically targeted to particular communities through research and community involvement.

Introduction

Of the many challenges the national school system must face, perhaps the most enduring and lasting has been the challenge of keeping students in school. The problem of dropouts is one that nearly every school faces, though some more than others. Research shows that dropout behavior is more prevalent in large, urban school districts and amongst students of color (Green, 2002; Rumberger, 1983; Rumberger & Thomas, 2000).

High school graduation is an effective predictor of future life prospects. For people over 25, the median income of those without a high school diploma or GED was $15,334 and the median income of those with at least a diploma or GED was $29,294 according to the 1999 US Census (Green, 2002). Those who drop out of high school are more likely to become single parents, have children young, rely on public assistance, and/or be in prison (Green, 2002). Yet, despite the clear economic and social disadvantages of not completing at least a high school education, students continue to drop out of schools.

In order to address the dropout issue, this paper investigates several questions. First, who is most likely to drop out of schools? Second, why do these students drop out, and why don’t their peers? Third, what strategies can be implemented to lessen the incidence of dropping out, and which are most effective?

While each researcher must decide how to define ‘dropping out,’ the most common and broadest definition is the ‘status dropout,’ defined in Green (2002) as: “young people (usually 16 through 24 years old) who are not currently enrolled in school and who have not received a high school diploma or a General Educational Development (GED) credential” (para. 24). Dropout prevention programs, strategies, and interventions are often implemented to reduce dropout rates. For the purposes of this paper, any such program, strategy, or intervention is considered to be one of dropout prevention whether it is related to the school system or an outside agency, involved in the school day or extracurricular. Since academic success is correlated with a reduction in dropout behavior, I will also include effective teaching strategies and philosophies that are related to at-risk youth.

Because of the sheer volume of research on this subject, this paper is necessarily limited. I have attempted to include primarily the most recent research and that which has most influenced the field in an effort to maintain relevance to current practice and theory.

Literature Review

Who Drops Out of Schools?

Rumberger has done extensive research on who drops out of schools. In a 1983 examination of how race, sex, and family background (which includes both academic history and socioeconomic status) are correlated with dropping out, Rumberger found that family background is a significant predictor of dropping out for members of all race and sex groups. Students from a lower socioeconomic class have a much higher dropout incidence than those from a higher socioeconomic class. One theory to explain this is that students from higher socioeconomic classes have parents with higher levels of education acting as role models and/or motivators. In Black and White females, dropping out seems to be linked more to the mother’s educational level; the same trend holds for Black, White, and Hispanic males and their father’s educational level. Black males’ incidence of dropping out is also linked to the mother’s educational level. Other determinants were also discovered, such as early marriage and/or childbirth. The limitations of the study include (and are admitted): a lack of complete data and data on schools, meaning that there may be many more variables linked to dropping out. Also, these factors
cannot be considered to be causal, merely correlated (Rumberger, 1983).

Fortunately, in 1988 the National Center for Education Statistics created a national representative sample of eighth grade students with extensive data collected on the students as well as their parents, teachers, and administrators. This survey was the first national collection of its kind to provide useful statistics on dropout behavior. While previous longitudinal studies had been performed, data gathered on dropout behavior was often tainted. The initial collection group also gave follow up data in several waves taking place in 1990, 1992, 1994, and 2000. This data, referred to as the National Education Longitudinal Study of 1988 (NELS:88) and made available to educational researchers, was able to inform research with an amount of national data that could never be accumulated by individuals (NCES, n.d.).

Using this new data, more extensive studies could be performed. Employing a model that includes student level variables (demographic, family background, academic background) as well as school level variables (student composition, structural characteristics, school resources, school processes), Rumberger and Thomas (2000) found that high dropout rates exist mostly in large, urban school systems and that there is a small proportion of high schools in which this problem is concentrated. Furthermore, even when family and academic backgrounds were controlled for, Blacks, Hispanics, and Native Americans are 40-70 percent more likely to leave school than Whites. Family background is still a national predictor however, with high socioeconomic status (SES) students being 50 percent less likely to drop out than their average SES counterparts, and low SES students being twice as likely to drop out than students from average SES families. Other predictors include non-traditional families (students not living with both parents), siblings who dropped out of school, and whether the student was retained or took remedial classes. At the school level, average socioeconomic status across the school, as well as average grade retention were linked to dropout rates, with higher dropout rates for schools with lower socioeconomic status and higher grade retention.

Using the NELS:88 and its follow-up collections, Lan and Lanthier (2003) were able to examine changes in personally reported attributes of dropouts from eighth grade until the incidence of dropout for a large population. They examined nine variables through the students’ high school years, all of which fell over time until the students dropped out. Five of these showed statistical significance for drop out behavior: academic performance, relationships with teachers, perception of school, motivation for schoolwork, and participation in school activities. The earliest predictor of dropping out, and the only one not at the national average in 8th grade when the study began, was academic performance, which was already 0.48 standard deviations below the national average in 8th grade, and fell to 0.59 SD and 0.68 SD below that average in 10th and 12th grades, respectively. Relationships with teachers were not worse than the national average in 8th grade, but had dropped significantly by 10th grade and continued to fall. Perception of school and motivation for schoolwork both fell significantly between 8th and 10th grades, but not much further after 10th grade. Participation in school activities was a late indicator, falling only between 10th and 12th grades.

Arcia (2006) conducted longitudinal retrospective analyses of achievement and enrollment status with suspension history. She found a significant difference in reading achievement as well as incidence of dropout that increased with the number of days suspended. However, she does note that suspensions and achievement can both be determined by behavior, and that suspension cannot be considered to be causal to dropping out. Roderick (1994) found grade retention to be significantly correlated with dropping out. This was the case for retention between 4th and 6th grades (90% increase in odds) as well as for between kindergarten and 3rd grade (75% increase). Even controlling for academic performance at the time of dropout with same level peers showed significance, suggesting being overage for grade as a possible explanation (Roderick, 1994).

From such studies, the presence of characteristics such as low socioeconomic status, minority social status, family background, school resources and climate, and others have given rise to the term “at-risk.” Risk factors, however, should not be viewed in terms of the student, but in terms of the situation the student is in. Montgomery and Rossi (1994) have constructed a concept of the at-risk student: if a situation decreases a student’s abilities, willingness, or opportunities to achieve academically and intellectually, that student is at-risk. Risk factors are variables that influence this situation. In this way, they claim, “being an African American child, for example, is not a risk factor, while experiencing adverse treatment in or outside the classroom because of one’s race or ethnicity is a risk factor.” (p. 13) The former implies there is something inherent to students that cause them to be at-risk, laying a foundation for victim-blaming. The latter results in a framing of the situation as being accessible to change and action.
Why Do Students Drop Out?

Risk factors can only provide predictors of dropout behavior; those factors cannot be considered to be directly causal. Because of this, one of the most important steps to finding solutions to the dropout problem is to discover why students drop out. Dropouts give many reasons for dropping out, but some are more prevalent than others. Tidwell (1988) examined twelve high schools in 1988 to determine reasons for dropping out through interviews with dropouts. Most of the dropouts interviewed (99.1%) believed that learning, education, and a high school graduation were important. The most commonly given reasons for dropping out were academic failure, family reasons, being over 18 years old, work responsibilities, and problems with teachers. Academic failure was the most common answer for all ethnicities except for Blacks, for whom family reasons was highest. Very few (less than 5% combined) cited juvenile court placement or marriage as their reason for dropping out.

Often, the public will blame cultural or class differences for the incidence of academic failure and drop out in urban, low-income, minority schools. Ogbu (1991) rejects these ideas as ethnocentric, recognizing research showing that immigrant minorities and nonimmigrant minorities show differences in achievement and motivation, and that at any given socioeconomic level Blacks do less well than Whites. He claims that these explanations ignore historical and societal forces at work, and that these differences are the result of the cultural model that guide minorities’ treatment of education. Cultural models are shaped by both the group’s initial terms of incorporation into a dominant society (immigrant voluntary vs. nonimmigrant involuntary) and adaptive responses to subsequent discriminatory treatment. Immigrant minorities tend to view this discrimination as a temporary problem to be overcome through education and hard work. They push their children to succeed despite language and cultural barriers. Nonimmigrant involuntary minorities will verbalize the importance of education, but actions and other communications give a contradictory message of permanent institutionalized discrimination, implying that education cannot lift them out of the situation they are in because the dominant culture will still deny them opportunities. This results in an oppositional attitude that cultural and language barriers are to be maintained as identity markers and success is to be found by circumventing the dominant institutions through collective struggle and even illicit means. This cultural mistrust in African American adolescents has been found by Ogbu and others to be negatively related to both the held value of education and educational outcome expectations (Irving & Hudley, 2005; Ogbu, 1991).

Another explanation for minority underachievement is Steele’s (1997) stereotype threat theory. Admitting the limitations imposed by social structure, Steele argues that those who survive the barriers and identify with academics must still face the further threat of having a stereotype applied to them. When this threat is felt, performance is inhibited, and if the feeling of threat is chronic, disidentification can take place. The negative stereotype is relevant to the individual because it comes in conflict with the self-concept as an academically identified member of a minority group. Taking Steele’s theory further into the realm of dropouts, Osborne and Walker (2006) supposed that the more strongly a student identified with academics, the greater the feeling of stereotype threat would be experienced. They found that while, regardless of ethnicity, more academically identified students had higher GPAs, less absenteeism, and better behavior, students of color still withdrew from school. For these students, experiencing this threat chronically, school is an aversive environment. To resolve this dissonance, Osborne and Walker suggest that students can either disidentify or remove themselves from the environment. However, it would be going unsubstantiated to claim that academic success caused these students to withdraw from school. It seems more likely that this study actually shows that academic identification and success alone are not sufficient to overcome other factors, and that more is required to reduce dropout incidence.

Why Do Peers of Dropouts Succeed?

Despite the presence of many factors placing them at risk, many students do succeed. These students are most often referred to as “resilient,” and there is much study on why these students are resilient, how they came to be so, and how resilience can be fostered. Minority group and socioeconomic status characteristics are insufficient to explain dropout incidence. Academic engagement, even when background characteristics are controlled, yield large differences between resilient and non-resilient students (Finn & Rock, 1997).

Garmezy (1991), the foremost pioneer in work understanding resilience, identifies three factors that are universal defining resilience. They include individual intelligence and temperament, family support, and external support for both child and family. In Condly’s (2006) review of resilience research, he summarizes each. Resilient children possess above average intelligence and a temperament endearing to others while disallowing
self-pity to balance the increased awareness of difficult situations. A supportive family that has elicited secure attachment early in life also helps, though its importance declines as the child becomes more immersed in peer groups. Outside social support must focus on the child, but also include the rest of the child’s family in its consideration and aid.

Some schools foster resilience better than others. Instructional features that are linked to eliciting resilience and achievement despite their adverse circumstances include challenging instruction, student choice in instructional activities, strong parental involvement, and a pleasant school climate (Wang, Haertel, & Walberg, 1997). In a study on the transition to high school of a group of academically identified low-income African American students, Newman, Myers, Newman, Lohman, and Smith (2000) found that familial (and especially mother’s) support and peer relationships that view education in a positive light are vital to academic success. They suggest reciprocal communication and cooperation between home and school.

How Can We Prevent Dropouts?
Despite best intentions, the U.S. Department of Education’s evaluations of dropout prevention programs have shown that many programs are unsuccessful in reducing dropout rates. In recent years, educators have begun to realize that specific pre-packaged programs are often ineffective because they apply the same approach to different students facing different difficulties and risk factors. A program must be designed with the individuals it will serve in mind. From this starting point, possessing a stock of intervention strategies to be applied in combination and as needed becomes more useful than a specific program (Dyarski & Gleason, 2002).

Many programs apply Finn’s (1989) models of why students drop out of schools. One is the frustration—self-esteem model, which claims that poor school performance leads to an impaired view of the self, resulting in a backlash opinion of education as a defense mechanism. The other model is the participation-identification model, stating that students who participate in school activities will value and identify with school culture and its goals, while those who do not will feel alienated. By succeeding academically and/or being accepted into the school community, students would be less likely to drop out.

Legters and McDill (1994) identified several emerging strategies to prevent dropouts that are replacing the traditional methods of grouping/tracking, retention, special education, and pull-out programs. These traditional programs were often ineffective, stigmatizing, and expensive. Common new strategies included early intervention in preschool and kindergarten, multicultural education, curriculum change to slow the pace while working at a higher, more engaging and relevant level, real-world and academic-vocational integrated learning, and mentoring/tutoring. Also mentioned were parent-community-school partnerships.

Over a decade later, Hoyle & Collier (2006) examined ten urban school districts to identify what strategies were being implemented to reduce dropouts. They found 38 separate strategies being employed. Of these 38, the majority fell under four of the fifteen strategies recommended by the National Dropout Prevention Center. These four were: evidence of systemic renewal (changing the system, assigning staff specific to dropout prevention, staff development), alternative schooling, community collaboration, and mentoring/tutoring. Five of the fifteen strategies were not implemented at all, including multiple intelligence/learning style strategies, individualized instruction, reading and writing programs, service learning, or early childhood education interventions. The districts with specific personnel assigned to dropout prevention also often had the most specific and targeted plans.

Which Strategies Are The Most Effective?
Irvine (1990) influenced many researchers in attempting to identify the most effective strategies to improve the achievement among Black children, and her findings generalize to other groups as well. She strongly advocates decreasing cultural discontinuity and increasing cultural relevance of education by involving students’ home and community culture. She also insists that teachers must hold high expectations while remaining flexible with their students as well as eliminating tracking and ability groups. Teachers should also strive to help parents be better able to assist their children in school endeavors.

McPartland (1994) has developed a typology of students’ motivational sources to stay in school built upon two variables of Type of Organizational Environment and Nature of Organizational Problems to create four essential components of a dropout prevention strategy. See Table 1 for a reproduction of the original figure. Type of Organizational Environment is divided into Formal (school academic goals) and Informal (school social relations), while Nature of Organizational Problems is divided into Internal (students’ within school experiences) and External (students’ connections with the outside world). This results in the following four components: opportunities for success in schoolwork, human climate of caring and support, relevance of
Table 1.
Typology of Sources of Student Motivation to Stay in School and Work Hard on School Learning Goals. Taken from Figure 12.1 of McPartland (1994).

<table>
<thead>
<tr>
<th>Nature of Organizational Problems</th>
<th>Type of Organizational Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Formal (School Academic Goals)</td>
</tr>
<tr>
<td>Internal (within school experiences)</td>
<td></td>
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<tr>
<td></td>
<td>Informal (School Social Relations)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities for success in schoolwork</td>
<td>Human climate of caring and support</td>
</tr>
<tr>
<td>Relevance of school to students’ community and future</td>
<td>Help with student’s personal problems</td>
</tr>
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</table>

school to students’ community and future, and receiving help with student’s personal problems.

The first component addresses opportunities for academic success within the school. The NELS:88 found academic failure to be the most frequent response to why students dropped out. Lack of success reduces motivation and self-confidence. Educators can increase opportunities for success through a strong foundation of reading skills in early grades, a variety of assessment modalities, and changing criteria to make success available to all who put forth effort (McPartland, 1994). Also within the school, the second component focuses on creating a caring and supportive environment. After academic failure, the next most frequent reason for dropping out was teacher relationship problems. Negative views of teachers and schools can be multiplied and reinforced by peers in the same situation, and when teachers communicate low expectations overtly or covertly, and peer groups place low value on education, dropping out becomes even easier to do. Urban low-income minority students in large and anonymous environments are especially vulnerable. Educators can take on the task of building community and positive adult-student relationships (including working with parents) in order to make both the school and the home welcoming and supportive places (McPartland, 1994).

Moving outside the school, but directly related to the school’s academic goals, is maintaining the relevance of academics to the students. The NELS:88 found that once students had dropped out, the top reason given for possibly returning was that they would be able to get a good job. Right behind that was the inclusion of more interesting content. Students need to be able to relate schoolwork to their own lives and future goals, or risk a lack of intrinsic motivation. Curricula rarely integrate academics with vocational or career focus, and often lack attention to students’ cultural traditions. Including more of these aspects links schoolwork to students’ lives and ambitions (McPartland, 1994).

Outside the school and the classroom, a dropout prevention strategy must be striving to help students and their families meet basic needs and provide help with personal problems. McPartland (1994) writes that personal and familial problems and needs serve as an effective block from focusing on school. Essential social services are vital to an effective program, and educators should strive to identify when these services are necessary. This last view receives the least attention in the research, but is clearly a fundamental need that must be met before all others.

One program that successfully integrated the key components of McPartland’s typology is Los Angeles’ ALAS program. ALAS means “wings” in Spanish and stands for Achievement for Latinos through Academic Success. The program includes components to help students, teachers, schools, and parents cross cultural boundaries. Students were trained in social metacognitive problem-solving behaviors and participated in bonding extracurricular activities. Attendance reports and teacher feedback (daily, weekly, or bimonthly depending on student need) were monitored by the program and communicated to parents. Meanwhile, parent behavior was also monitored and parents were trained in parent-child problem solving as well as how best to participate in school activities. Teachers were used as advisors as to the effectiveness of the program in order to ensure the inclusion of the students’ educators in the process. The program held itself accountable to its goal of improving student progress by attending to the many needs of students despite complex situations.

The program was adaptive to the needs and nuances of the community. Verbal communication replaced written communication when notes sent home were ineffective because local Chicano culture.
had an aversion to mail (which often contained bills and official notices) and employed family processes that resulted in the loss of the notes. By creating a positive school culture, providing day to day feedback on student behavior, and providing training for students and families on how to interact with the school culture, the ALAS program showed significant differences between a control and experimental group in dropouts, attendance, and grades (Rumberger & Larson, 1994). These strategies helped students and parents relate to the school and educators. The program was not an outside agency able to work with training the educators themselves, however.

Teel, Debruin-Parecki, and Covington (1998) identified several teaching strategies that have been shown to be motivational and positive for African American students. Such strategies include effort-based grading, multiple performance opportunities, increased student responsibility and choices, and validation of cultural heritage. Effort-based grading allows students to work until they succeed, and receive their grade based upon effort put in as well as the finished product, but disregards the time required. Multiple performance opportunities gave students the ability to demonstrate their talents across a variety of modalities. Students were also given responsibilities and choices regarding curriculum activities, giving them a sense of autonomy in the classroom as well as reducing resistance to the class agenda. Validation of cultural heritage in the classroom helped the students feel that school was not a place where they had to be someone other than themselves, and that their culture had a place in the school environment.

When African American students describe effective teachers, they often refer to teachers’ ability to structure classrooms with family or community practices, beliefs, and values as models. They claim that teachers who pair anger and disappointment at their students’ academic underachievement with respect, encouragement, and support when dealing with both their academic and personal lives have better rapport with their students and can be more effective (Howard, 2002).

Many of these characteristics are present in what Ladson-Billings (1994) describes as culturally relevant teaching. Culturally relevant teaching uses the community and culture of the students in order to encourage students to both identify with and internalize standards of academic excellence and still identify with African American culture. By building a respected community of learners, culturally relevant teaching encourages collaboration and responsibility. Ware (2006) combines culturally relevant teaching with the concept of the “warm demander” to produce a concept of a teacher as one who consistently insists on excellence from their students. These teachers exude their belief in their students’ abilities and are dedicated to their students’ needs, while maintaining a culturally responsive pedagogy that creates a culture of achievement in their students.

Asa Hilliard (2003) also writes of teachers that would be considered warm demanders. When describing one such teacher, he claims that, “the relationship is more motherly than manager, more scientist than preacher or lecturer, more coach and partner in investigations than passive supervisor” (Hilliard, 2003, p. 154). He also writes that the most effective teachers are far more concerned with their students’ opportunities to learn and their own teaching than with their students’ intelligence. By refusing to give validation to IQ scores and other supposed intelligence measurements, the best teachers produce the best performing students.

Daniels and Arapostathis (2005) reflect this way in a study of their own students. Through interviews attempting to describe how teachers can motivate reluctant learners to engage, they reported their students’ own words. By researching within their own school, they were able to more effectively inform their own teaching in their own environment. The interviews and observations resulted in discovering students wanted their teachers to provide interesting and challenging activity and who overtly communicate the purpose of learning the material. They also reported that teachers who treat the classroom as a partnership rather than a dictatorship earn the trust of their students.

Conclusions

Demographic research has shown strong correlations between dropping out and factors such as low socioeconomic status, minority social status, family background, and school resources and climate. Large, urban school systems are the most likely to have high dropout rates. Black, Hispanic, and Native American students are much more likely to drop out than Whites. Lower socioeconomic status correlates to higher dropout rates. Students with more disciplinary issues such as suspensions and grade retentions were also more likely to drop out. Considered “risk factors,” these situational aspects can help to identify students who are at-risk of dropping out (Arcia, 2006; Lan & Lanthier, 2003; Montgomery & Rossi, 1994; NCES, n.d.; Roderick, 1994; Rumberger, 1983; Rumberger & Thomas, 2000).

Many researchers and theorists have advanced theories on why students drop out of schools. Drop outs cited academic failure, family reasons, being over 18 years old, work responsibilities, and problems with teachers as common immediate
reasons (Tidwell, 1988). Discouragement with the educational system’s ability to lessen the effects of discrimination and stereotyping can create cultural mistrust that leads to a disidentification with academics, making school aversive and the dropout process easier (Irving & Hudley, 2005; Ogbu, 1991; Osborne & Walker, 2006).

However, resilient students do survive their situations and succeed in schools. These students are characterized by their above average intelligence, endearing temperaments, and lack of self-pity (Condly, 2006). Schools can help foster this resilience through a combination of setting high demands while allowing a certain degree of student autonomy in their education. Also important is the support of family and parental involvement early in students’ education and the support of peer groups as the student grows older (Newman et al., 2000; Wang et al., 1997). To accomplish this, programs and interventions should be specifically designed to meet the needs of the school district and community (Dynarski & Gleason, 2002). Some of the more effective strategies include early childhood intervention, culturally responsive pedagogy, curriculums that raise engagement and demands while slowing pace, mentoring/tutoring, and heavy involvement with parents and communities through integrated vocational and real-world programs (Irvine, 1990; Legters & McDill, 1994; Teel et al., 1998). For teachers, culturally relevant teaching and setting high standards is very effective. These teachers should strive to hold their students responsible for achievement while encouraging those students’ self-efficacy (Hilliard, 2003; Howard, 2002; Irvine, 1990; Ladson-Billings, 1994; Ware, 2006). Teachers and administrators may also want to consider doing research in their own schools in order to identify the best practices for their own community, since each community will have its own needs and challenges (Daniels & Arapostathis, 2005).

**Recommendations for Practice**

Students at risk for dropout are at-risk because of the situations they are in, not because of any inherent characteristics of their own. This understanding is vital when considering practical recommendations to prevent dropout behavior (Montgomery & Rossi, 1994). Dropout prevention strategies should focus on eliciting students’ resilience to adverse situations as well as alleviating current situational challenges. McPartland’s (1994) typology provides an excellent framework in creating dropout prevention strategies, recommending that they create opportunities for academic success, supportive and caring environments, building school to real-life relevance, and aiding with challenges in students’ personal and familial lives. Effective dropout prevention strategies should engage all of these areas in ways that target particular communities’ needs and challenges.

Educator-conducted research that is specific to the local community and school population is very helpful in creating effective strategies. In order to meet the needs of students, those needs must be identified and examined. Interviews and observations provide essential information that can inform teaching and community outreach programs, as well as build a school environment in which students feel that their teachers care about them as people (Daniels & Arapostathis, 2005).

Once a greater understanding of the lives of the students and the culture of the community has been gained, culturally relevant teaching practices help to further create a supportive classroom environment. Valuing and validating the community and culture of students builds a bridge between the in-school and out-of-school environments (Ladson-Billings, 1994). Coupled with high expectations and encouragement, as well as varied assessment methods, the classroom can become a place of academic engagement and achievement. Building a “warm demander” relationship creates a rapport between students and teacher that pushes students towards success. Self-reflective teachers that are constantly focused on their own teaching and their students’ opportunities to learn are most effective (Hilliard, 2003; Ware, 2006).

Educator and school involvement in the community and the personal lives of the students is also vital to a dropout prevention strategy’s success. No student will be able to focus on academics while safety and security needs are not met. The school should be striving to reach out to students and their families with targeted social service programs that can help families meet their needs in productive ways. Community improvement initiatives that involve the school can improve the overall out-of-school environment, as well as serve to further integrate the school as an institution with the surrounding community (Dynarski & Gleason, 2002).

Many dropout prevention strategies exist, but whether they are successful depends on whether they are appropriate for the community in which they are implemented. Identifying specific challenges, using culturally relevant pedagogy, and being involved with community and personal struggles are vital to successfully keeping students academically engaged through graduation and beyond. Perhaps Research, Responsiveness, and Reaching Out ought to be the new three R’s in schools battling increasing dropout rates.
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Influences of Multicultural Education:
Persistence, Attitudes, Academic Success, and Math Success

by Kacie Dill

This paper concerns itself with the impact of multicultural education on students and ways that teachers can incorporate cultural responsiveness into their classroom. In the research of multiculturalism and mathematics, four major topics came forth: multiculturalism produces effects upon a student’s academic success, persistence, attitudes, and math success. When looking for opportunities to create and expand the multicultural classroom, the teacher should begin by looking at the students, community and culture of the participants. Close attention should be paid to beliefs, teachings, values, dominant culture’s stereotypes, issues, and concerns that exist in the school. This paper provides evidence that alternative or multicultural education has an effect on students’ academic success, persistence, attitudes, and math success.

Introduction

In the ever-changing culture of the American classroom, teachers must be prepared to teach the child in front of them. This individual child does not exist in a textbook, and nothing but experience will demonstrate if various teaching methods produce a positive or negative effect on him or her. This paper looks at the role of multicultural education, or culturally responsive teaching, on a student’s persistence, attitudes, and academic and math success. The goal of this research is to provide an arsenal of methods, ideas, concepts, and studies on which to build a curriculum. One of the assumptions that has grown and changed as this paper was composed, is that of children I had assumed to exist. These general children do not and will never sit in front of me, as each classroom environment and its participants make the classroom culture unique (Rogoff, 2003). This paper will examine the overall effects of multiculturalism and culturally responsive teaching on students, teachers, and mathematics.

In this paper, I will examine the question: In what ways does multicultural education affect student persistence, academic success, and attitudes. Where appropriate, I will also address students’ success in mathematics. In the research of multiculturalism and mathematics, four major topics came forth: multiculturalism produces effects upon a student’s academic success, persistence, attitudes, and math success. Academic success refers to a student’s typical achievement inside of the classroom. This is examined through particular programs and studies that address students’ abilities, weaknesses and intervention methods. Persistence, both of teacher and pupil, and positive attitudes have all been shown to have an encouraging effect on students’ mathematics abilities (Papanastasiou & Bottiger, 2004). Math success is of particular interest because of the connection of math to high tech jobs (Heinrich, Jordan, Smalley, & Boast, 2005).

A variety of terminology that is exclusive to this topic is defined here:

1. Cultural deprivation is defined as a condition when the dominant culture expects minorities to take on traits and habits of cultures other than their own. This was once the unwritten rule of the American School (Spring, 2004).
2. Culturally responsive teaching is defined as responding to a culture’s needs and wants inside the classroom (Weinstein, Curran, & Tomlinson-Clarke, 2003).
3. Multicultural education/teaching is using aspects of various cultures in lesson planning, classroom management, and themes of a class (Sleeter, 1997).
4. Alternative style(s) is used to describe anything other than traditional education.
5. Traditional education refers to the early 20th century classroom in which silence, order, and obedience were stressed (Spring, 2004).
6. The Achievement Gap is the difference in academic testing and achievement scores between white students and those of minority descent (Shannon & Bylsma, 2002).
7. Coding refers to a person’s natural language, including slang terms used at home, which differs and changes inside any setting requiring communication with the dominant culture (Delpit, 2006; Tatum, 2003; Weaver, 2002).

This paper is limited in its scope, examining only some of the vast variety of alternative teaching styles and their implications. This limitation is deliberate, in order to examine the overarching ideas of academic
success, persistence, attitudes, and math success in a more succinct manner. As stated above, there is little “hard data” proving that these methods do work. There is, however, a wealth of case studies which use self-reporting and observation to make the claims examined in this paper. One aspect many agree upon is that, historically, minority members of American society have been left out of the educational perspective.

Literature Review

History

The traditional American schooling system was designed to educate the students of the wealthy Protestant Anglo-Americans. It follows that the education and models of teaching that came forth from this beginning are geared toward the Anglo-American culture (Spring, 2004, p. 657). Segregation laws and practices allowed the establishment of separate schools for African Americans, Native Americans, Mexican Americans and various other races and/or ethnic groups (Spring, 2004). Nationally, it took the Civil Rights movement, spurred by the Brown decision, to move minority students out of segregated schools and into the public school systems (Durodoye & Hildreth, 1995; Spring, 2004). African Americans, Native Americans, Mexican Americans and other minorities, once freed of segregation, were integrated into the public schools. Inside the system, students were subjected to more of the same cultural deprivation that had occurred during segregation.

Inside the public school no real effort was made to honor these other cultures (Spring, 2004). To survive in the systems, minority students would need to learn to act white. In the 1960s to early 1970s, outrage stemming from cultural deprivation led to the founding of multicultural education as a study (Sleeter, 1997). For a short period of time, 1970s up to the very early 1980s, there was a change in goals designed to celebrate and incorporate multi-culturalism into the schools (Durodoye & Hildreth, 1995). During that same period, a shrinking of the gap between minorities and the dominant culture could be seen and measured (Slavin, 1997). However, the move to multiculturalism did not last, and in the late 1980s and up to today, the gap is steadily increasing.

Current Connections to Cultural Issues

Historically, IQ tests, cultural dominance, and stereotyping have enforced the belief that minority students are less intelligent than their white counterparts (Rogoff, 2003; Spring, 2004). Today, in a more enlightened age, teachers in public schools are called upon to solve the issue of the achievement gap, which had its beginnings in the integration of public schools. While there are some who may still believe whites are superior intellectually, there are many studies that cite other reasons for the achievement disparity. The idea, in some of these studies, is that students of minority heritages, non-native speakers, and those with other non-traditional learning styles are not being spoken to in their own cultural code, and educators could do much more in addressing these students’ learning styles, customs, and cultures (Bailey & Pransky, 2005; Berry III, 2003; Cajete, 1994; Chapman, 1993; Cohen, 1994; Delpit, 2006; Durodoye & Hildreth, 1995; Holloway, 2004; Ladson-Billings, 1997; Ladson-Billings & Tate, 1995; Mooney, 2000; Rogoff, 2003; Shannon & Bylsma, 2002; Slavin, 1997; Tatum, 2003).

This is not a simple problem with a single solution. Historical and current barriers to teaching students in a more culturally appropriate manner are vast and begin with education of the educators (Delpit, 2006; Huerta, 1999; Sleeter, 1997). A formulaic method to teach all children in their own preferred manner is impossible due to dominant cultural beliefs, misunderstanding of what it means to be culturally responsive, the silent voices of minority teachers, and the sheer enormity of the situation. The culture in a classroom is an ever-evolving entity (Bailey & Pransky, 2005; Berry III, 2003; Bowman, 2003; Cajete, 1994; Chapman, 1993; Delpit, 2006; Simpkins, Davis-Kean, & Eccles, 2006; Slavin, 1997; Sleeter, 1997).

While nailing down and addressing this problem may seem impossible, there is at least one area of agreement: expectations. Teachers, schools, and students all believe that higher expectations will serve students better (Addington, Clemons, Howe, & Saul, 2000; Arends, 1997; Bailey & Pransky, 2005; Barba, 1998; Dewey, 1938; Herbst & Brach, 2006; Holloway, 2004). Washington State has determined that to address the gap, teachers and school districts must look at policies and practices concerning caring, expectations, efficacy, persistence, and cultural responsiveness (Shannon & Bylsma, 2002). Unfortunately, current legislation has forced some districts to lower their expectations to meet requirements that are more demanding.

Major Points of View

The traditional class curricula that are more often used involve the teacher lecturing and students taking notes. Teachers are considered to be holders of the information and students recipients of the teacher’s vast knowledge, (Shannon & Bylsma, 2002; Spring, 2004). Students are expected to regard the teacher with respect by sitting still and being quiet. This traditional class curriculum is built upon a rigid early
20th century German model (Berry III, 2003; Spring, 2004). The typical student who works best in this educational model tends to be from European or Asiatic background and is of upper middle class. But not every student fits that mold. With other cultures, and for those students of European and Asian descent who do not work well under the traditional model, different approaches have given positive results (Addington et al., 2000; Bailey & Pransky, 2005; Barba, 1998; Berry III, 2003; Cajete, 1994; Durodoye & Hildreth, 1995; Holloway, 2004; Ladson-Billings, 1997; Simpkins et al., 2006).

The collective works of Ladson-Billings (1990, 1995, 1997), Delpit (2006), Tatum (2003), and Slavin (1981, 1988, 1989, 1991, 1997), cornerstone researchers in this field, support multicultural or alternative learning methods used inside the diverse classroom. To boost a student’s persistence, attitude and success, teachers should increase sense of community through group work, self-determination, adding international dimension, and redesigning classes to include all students (Berry III, 2003; Chapman, 1993; Cohen, 1994; Ladson-Billings, 1990, 1997; Ladson-Billings & Tate, 1995; Slavin, 1981, 1988, 1991; Slavin & Madden, 1989). These ideas and methods, born from the classical ideas of Dewey, Vygotsky, Skinner and Rousseau, provide the diverse classroom teacher with a variety of options for educating the non-traditional student. Persistence and attitudes are viewed as part of academic success but have been broken out separately in this article because of the volume of documentation that alternative learning has on these topics.

To encapsulate, there are students of African and Native American descent who do extremely well inside the traditional classroom; likewise there are European American students that fare better in the alternative classroom (Bailey & Pransky, 2005; Delpit, 2006; Johnson, 2004; Mooney, 2000; Tatum, 2003). Instruction for students is more effective if it is authentic, culturally responsive, and addresses needs that each student has (Arends, 1997; Bailey & Pransky, 2005; Berry III, 2003; Dewey, 1938; Rousseau, 1911; Vygotsky, 1978). The theories and studies addressed in this paper are all built upon the premise that there is no one-size-fits-all approach to teaching. The ideas of teaching the child in front of you, persistence, being able to change plans and to adjust for a variety of students are based in the classical studies of education theory. These provide the framework for the non-traditional classroom (Arends, 1997). There are also hurdles to using the multicultural, multimodal, and alternative styles of teaching. Some of these are student’s expectations, school support, community support, teacher education, parents’ perspective, and the social stigma of being alternative (Arends, 1997; Huerta, 1999).

Academic Success

There are two major factors that dominate the topic of academic success: teaching methods and specific cultural needs. It is documented that, on average, non-Asian minority students fare worse on standardized tests, in mathematics, and on overall high school graduation requirements, than the average student of European and Asian descent (Berry III, 2003; Delpit, 2006; Ladson-Billings, 1997; Neild & Balfanz, 2006; Shannon & Bylisma, 2002; Tatum, 2003). The status-quo teaching methods used in traditional classrooms are that of lecture, listen, and note-taking (Spring, 2004; Weinstein et al., 2003). As explained, these methods are highly successful for some of the European and Asian American students, but leave out many other types of learners.

While the primary concern of this paper is that of racial minorities, there are also minority Anglo students hidden in the traditional classroom whose needs are not being met. In both Learning Outside of the Lines, and Mind Wide Open, the authors discuss how brains can function differently. The authors of Learning Outside of the Lines, themselves, have ADHD and dyslexia, and they relate how difficult it has been for them learning in a traditional setting (Mooney & Cole, 2000). The author of Mind Wide Open goes a step further, to show that inside the brain, the activity is different for some students. This variation in brain function makes it more difficult for these students to learn with traditional methods (Johnson, 2004).

One alternative method for teaching the student who cannot learn in a traditional setting is cooperative learning. “There is a tendency for Blacks to gain outstandingly in achievement as a result of working cooperatively,” (Slavin, 1981, p. 657). The cooperative style of learning speaks directly to African Americans and Native Americans, who traditionally have a community-based theory of knowledge (Berry III, 2003; Bowman, 2003; Cajete, 1994; Ladson-Billings & Tate, 1995). Supporting the work of cooperative learning are Cohen (1994), Arends (1997), Slavin (1981; 1988; 1991; 1989), and Vygotsky (1978). Studies done by Arends (1997), Cohen (1994) and Slavin (1988; 1991) refer to factors making group work effective as the dual assessments of group and individual accountability. Ladson-Billings and Tate (1995) state in Toward a Critical Race Theory of Education that African American students do better outside of school on academic topics (p. 55). By removing the “school” from learning, these students may learn better. This
idea supports the basis that authentic, real-world issues are needed in order to address the academic concerns of alternative and minority learners (Arends, 1997; Berry III, 2003; Ladson-Billings, 1990, 1997; Ladson-Billings & Tate, 1995). While information and the documentation support moving to this type of education for the Native American, African American, and Mexican American student, there is still a disturbing lack of solid evidence. The researchers’ interpretations of students’ knowledge, self-reported accounts of understanding, and analysis of these methods are used as data. In my research, a voice of contention, Lisa Delpit (2006), addresses some of the relevant issues upon which others have not touched.

Delpit (2006) argues, in her book Other People’s Children, that students of color have coding issues that require them to understand, from the primary grades, the subtleties of standard English. There is a cultural difference in how students are asked to accomplish tasks, and acknowledging it can be very simple. The white teacher, unconscious of the problem, might say, “I’ll wait until everyone is ready to hear this book.” This phrasing might not convey to an African American child that he is required to come to attention, and quickly (Delpit, 2006; Tatum, 2003). Unambiguous language such as, “It’s time to sit and listen,” may help the African American child to do better (Delpit, 2006; Tatum, 2003). Delpit claims that, though students are being taught in a more culturally responsive way than previously, teachers are still using the language nuances of dominant culture, making interpretation by minority students difficult.

**Persistence and Attitude**

Several studies have cited persistence and attitude as determining factors of success. Case studies and teaching methods reviewed for this paper suggest that some form of persistence on the part of the teacher, positively affects persistence on the part of the student (Arends, 1997; Ballenger & Rosenbery, 2003; Barba, 1998; Shannon & Bylsma, 2002). In both Arends (1997) and Barba (1998), advice is given encouraging teachers to be adaptable. The young or inexperienced teacher is further encouraged to try new things and even to seek out a mentor to assist in trying new things. In a study of teacher research by Ballenger and Rosenbery (2003), what can be seen most clearly as important is the teacher’s reluctance to give up on troubled students. This quality has been documented as highly effective in reaching students left out by traditional methods (Ballenger & Rosenbery, 2003; Shannon & Bylsma, 2002; Statzner, 1994). Because the teacher will not give up on the student, the student does not give up on the class. Students who are encouraged in particular subject matter are more persistent (Papanastasiou & Bottiger, 2004; Niess, 2005; Reis & Grahm, 2005; Shannon & Bylsma, 2002; Statzner, 1994). There is no hard data as to what doing well looks like on tests, yet it is noted in some of the studies that continuing math, taking algebra by ninth grade, and going on to take math in college constitutes persistence in this subject (Papanastasiou & Bottiger, 2004; Downey & Yuan, 2005; Leow, Marcus, Zanutto, & Boruch, 2004; Reis & Grahm, 2005; Rodgers, 1990; Simpkins et al., 2006). It is clear that persistence on the part of the student is highly dependent on his or her ability to do well inside the math classroom.

The attitude of the student toward school and/or toward a particular subject matters, too. In one study by Papanastasiou & Bottiger (2004), student success is partially attributed to attitude. The study, about making math more fun and accessible, cites increased students’ positive attitudes and aptitude as determining factors in success. This was accomplished through an extra-curricular math club one morning a week. Middle school students in this study self-reported on their attitudes, beliefs, and willingness to be involved in the math club. The reports demonstrate that taking stress off the students by using games and a series of self and group work projects promoted better math attitudes overall. In one particular area—liking math—these students stood out, with the majority of them actually enjoying the math club and their individual math classes (Papanastasiou & Bottiger, 2004). On various standardized tests, the school in this study came in being better, in some cases, than 92-94% of similar schools.

**Success in Math**

Having a firm basis in mathematics is actively becoming more of a necessity for high-paying jobs in technical fields (Heinrich, Jordan, Smalley, & Boast, 2005). Students having a grasp of math and its applications fare better in college and the job market (Heinrich et al., 2005). There are a variety of ideas as to what ensures success in math; both Fuchs et al. (2005) and Sophian (2004) have looked at early intervention. Both cite success in the development of math skills. Fuchs et al.’s (2005) study used tutoring for students who were falling behind in the first grade. Computers as tutors and adults as tutors both provided support for the students. In this case, students so tutored did progress to grade level. Once they left first grade, however, the program was discontinued, and in some cases the students struggled again (Fuchs et al., 2005). The Sophian (2004) study looked at the effects of a math-rich
program vs. a literacy program and on a math-rich program vs. no special program on students. The sets of students involved in both the literacy and the math programs fared better than those with no intervention. With this study, one of the main issues was that of domination of time. Inside the literacy program, more emphasis was given to completing the literacy work, and in some cases math was neglected. This, to a degree, could undermine the effects of the math-based curriculum (Sophian, 2004). With both of these studies, some drawbacks are the small study size—Fuchs et al.’s study of one school’s first grade class and Sophian’s sample of three Head Start centers. Additionally, neither of these studies continued to look at the long-term effect of these programs after the study.

Efforts at promoting math in middle and high school resulted in another idea presented by some of the researchers and examined further here. Mentioned above are the math club and its effects on students. Clubs and supplemental programs in addition to those offered in schools are a trend and have proven to be helpful to students (Slavin, 1981). Reis and Graham (2005) studied a girls’ program that took high school students and grouped them with elementary school counterparts. In this program, girls were encouraged to look at themselves and at famous women in math, science, and technology, to gain encouragement, understanding, and a support group for their own adventures in math. This program had positive effects on both sets of young women. The club provided the girls with a safe place to bring their math questions and problems, and provided ways to search for an answer within the security of this group (Reis & Graham, 2005). In many of the other studies researched for this paper, tutoring—both peer and cross age, math clubs, and intervention outside of the classroom all aided in math success.

Inside the classrooms, changing instruction made up the body of work. Changing classroom instruction for students includes using an interdisciplinary approach (Barba, 1998; Needham, 2004) that emphasizes connected knowing (Chapman, 1993) and discovery. All three of these concepts work well in the multicultural classroom. Having subjects interconnect, as with the MESH—Math, English, Science and History—program discussed by Barba (1998), and using history class to put math, science, literature, and other subjects into a historical context, both have had success in making the subject material real for the students. Chapman (1993) studied connected knowing. In this case, taking something that the student knows or permitting the student to spend more time with the material, having time off task to build a sense of understanding with it, and essentially building their own knowledge with the class community may be helpful to the multicultural student. Herbst (2006) studied how creating knowledge in the geometry classroom, through discovery, has both beneficial and detrimental effects. All of these studies looked at how changing the classroom direction and instruction could affect the student’s mathematical success. Inside of this vignette, the best effects were seen with the interdisciplinary approach. This may be because it is a more accepted way of teaching, there is a larger body of work on it, or in many cases it does encompass the connection of subjects.

The studies examined in this section give rise to a variety of drawbacks and questions. One of the major drawbacks of all of the studies is that they do not follow the students past the parameters of the study. The effects of tutoring in first grade or one class of cooperative learning may or may not bestow a permanent improvement in overall math achievement. For after school programs or math games, a highly motivated teacher is needed to implement the programs. This may be a larger issue, as still other studies cite teacher education, high qualifications, and teachers’ beliefs in multicultural education as factors that need to be addressed (Huerta, 1999; Shannon & Bylsma, 2002). For any program to be deemed successful, it must continue on for many years. In contrast, a majority of studies in this field are short term, from ten weeks in length to a year (Slavin, 1981) or they are used with a couple of classes (Fuchs et al., 2005) and then dropped. While this is enough to gain a snapshot of what a program might do, it in no way is definitive of what could or would happen if this intervention continued.

Conclusion

This paper has provided evidence that alternative or multicultural education has an effect on students’ academic success, persistence, attitudes, and math success. This effect can be seen following an intervention on a first grade class (Fuchs et al., 2005), with students from multiple races (Delpit, 2006; Ladson-Billings, 1990; Tatum, 2003), and on a set of students in a math club. Each of these examples has uncovered various aspects of multicultural education.

Academic success, persistence, attitudes, and math success all have an effect on students’ learning. Students who come from other countries, are of low socioeconomic status, learning English as a Second Language, African American, Native American, and/or students with learning disabilities all benefit from a multicultural curriculum. These students are the ones who are being left behind by the traditional system. The achievement gap research that has been conducted points to students of color as needing the
most improvement (Olszewski-Kubilius & Lee, 2004; Shannon & Bylsma, 2002). According to the researchers, the way to reach these students is with alternative, multicultural, or standards-based teaching. The measures of the impact these methods have had on the test groups have been positive. The test scores in one of the schools was among the highest in the state, (Papanastasiou & Bottiger, 2004). But to truly see the full-fledged transformative nature of what culturally responsive curricula can achieve, it must be a part of the entire system throughout a child’s full primary and secondary education.

While these claims are frequently and effectively presented, there is little in the way of hard data to confirm them. Conducting studies that look at the numbers of students who graduate, pass the states’ standardized test, improve report card grades, and continue on to higher levels of math and science would provide the best “proof” of the effectiveness of these methods. How students are measured as being successful is currently dependent upon the studies at hand and the researchers’ interpretation of that data. In the meantime, teachers still teach the child in front of them.

Recommendations for Practice

When looking for opportunities to create and expand the multicultural classroom, the teacher should begin by looking at the students, community and culture of the participants. Close attention should be paid to beliefs, teachings, values, dominant culture’s stereotypes, issues, and concerns that exist in the school. Stereotyping is normally considered “bad,” but to serve the child it is valuable that the teacher uses it to explore what the specific feelings of the community are towards varying participants in the classroom. This information can help evaluate possible difficulties that students might have. All of this information fills in the picture as to what the practice in the classroom should be.

Primary ingredients for multicultural education include experiencing and constructing authentic real-world applications. Students should have access to, and frequent interactions with, the community. All students should be provided with frequent opportunities to express their knowledge in a variety of media. In addition to traditional writing, students should be encouraged to use fine art and technology, termed artifacts (Arends, 1997). Once created, artifacts go beyond showing what a student learns to also showcase the students’ culture. With a variety of expressive forms, students can decide what is comfortable for them, while providing the teacher with an assessment tool.

“The question is not necessarily how to create the perfect ‘culturally matched’ learning situation for each ethnic group, but rather to recognize when there is a problem for a particular child and how to seek its cause in the most broadly conceived fashion,” (Delpit, 2006, p. 167). This paper provides educators with eleven distinct areas to address to make the traditional classroom more culturally responsive:

1. **Education of educators:** Teachers need to know the effects of traditional and culturally responsive pedagogies. Through education teachers can learn about their specific communities, students, and families, allowing them to make better decisions when planning curriculum (Delpit, 2006; Huerta, 1999; Sleeter, 1997).

2. **Expectations:** Teachers and schools that expect more of students have been shown in studies to get more. By setting the expectation levels higher, students tend to deliver higher products. Classrooms filled with underachieving students may be uninterested in their learning (Addington et al., 2000; Arends, 1997; Bailey & Pransky, 2005; Barba, 1998; Dewey, 1938; Herbst & Brach, 2006; Holloway, 2004; Shannon & Bylsma, 2002).

3. **Cooperative learning:** Group work allows students to learn from each other. Methods such as: think-pair-share, reading groups, convince yourself, convince a friend, convince a skeptic, jigsaw; and peer editing allow students to get immediate feedback, verify ideas, and become a teacher all at once. These methods can be invaluable to teachers of multicultural classrooms (Arends, 1997; Cohen, 1994; Slavin, 1981, 1988, 1991, 1997; Slavin & Madden, 1989; Vygotsky, 1978).

4. **International dimension:** Such studies can interest students in the world around them. Adding information about other cultures, places, and ways of understanding can aid students in drawing connections to their own lives. In using this, teachers should be cautious not to tokenize other cultures (Barba, 1998; Cushner, 1990; Ladson-Billings, 1990; Ladson-Billings & Tate, 1995).

5. **Authentic questions:** Decompartmentalize education by providing students with real world application of their studies. These types of questions tend to be more open ended allowing the students to explore in tangents while learning concepts concerning
the real world (Arends, 1997; Bailey & Pransky, 2005; Berry III, 2003; Dewey, 1938; Rousseau, 1911).

6. **Community involvement:** Taking the students into the community or having the community members come to the classroom reinforces authentic questions encourages citizenship, and provides students with explorations outside of the classroom. This can be done through soliciting local businesses for problems, issues, and calculations they need resolved. Students can explore many possibilities, write proposals and present findings to the business owners. Community involvement can also take the form of job shadowing and interviewing local individuals (Barba, 1998; Berry III, 2003; Cajete, 1994). For more information, see David Sobel’s *Place-based Education* (2006).

7. **Explicit language:** Probably the simplest of all to implement, students need explicit language, instructions, and directions. Teachers must be direct and specific when assigning homework, launching into a task, defining words, and in everyday conversation. Many students need to code switch and do not understand implications. Moving from “We’ll wait until everyone is ready” to “I want everyone’s eyes here and hands free while I explain the directions,” can have a profound impact on students (Delpit, 2006; Tatum, 2003).

8. **Persistence of teachers:** Persistence shows students that a teacher cares. This helps to create a safe and inviting classroom. Students may have had prior negative experiences with teachers who gave up or had teachers who formed quick unfavorable opinions of them. By persisting to try new things and work with the student, teachers have been known to have great success. Students also cite the desire to have teachers who do not give up on them (Arends, 1997; Ballenger & Rosenbery, 2003; Shannon & Bylsma, 2002).

9. **Variety of learning tools:** Today’s classrooms are filled with computers, overhead projectors, document cameras and textbooks. By providing students a variety of tools from which they can gather information, a teacher can speak to students’ individual learning styles. Websites, podcasts, music, manipulatives, community involvement, books, lectures, videos and the like can expand a teacher’s repertoire while providing additional teaching support for the student (Fuchs et al., 2005; Niess, 2005; Slavin, 1981).

10. **Supplemental programs:** Such as math clubs, tutoring, computers, and after school programs can be used in tandem with classroom instruction. By working with the community, meeting with programs, having after school or study hall tutoring sessions, teachers can increase their impact and ability to speak to the non-traditional student. Having information available for parents and student who wish to enroll in additional programs is further enhanced by the teacher knowing these programs (Papanastasiou & Bottiger, 2004; Fuchs et al., 2005; Slavin, 1981).

11. **Interdisciplinary studies:** Combine multiple subject and decompartmentalize the school day. By working with other teachers, community members and school officials, subjects can be placed back into real world contexts. Examining the relationships between historical events, science, math, writing, reading, and art provides students with context for the concepts they are learning (Barba, 1998; Cajete, 1994; Needham, 2004).

These eleven areas addressed in this paper provide teachers with the ability to transition slowly from the traditional classroom, or to dive right in. To support these and to influence students’ persistence, academic success, attitudes, and success, it is important for a teacher to know his or her students, community, and schools.

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An Ounce of Prevention is Worth a Pound of Cure: Easing the Transition into Middle School

by Matt Elm

This paper examines the academic, social, and emotional difficulties associated with the transition into middle school, and how to ameliorate them, as many students’ problems can be traced to this transition. This paper discusses diagnostic techniques and stressors and how students’ struggles relate to two models of the disengagement/drop out process — the Frustration-Self Esteem and Participation-Identification models. The juxtaposition of these two models with the developmental difficulties of the Elementary-Middle School transition yields significant results. Counselor and community involvement, for example, can help those following the former model, whereas open houses and summer camps can help with those falling under the latter model. The goal of this paper is to provide educators with the tools to prevent problems before they start.

Introduction

Each year 5% of American students, from kindergarten through twelfth grade, will drop out of school (Ysseldyke et al., 2000). This amount may seem trivial; however, the data, when projected over twelve years, are striking. Evidence in Table 1 supports the conclusion that a dropout crisis exists in contrast to rhetoric to the contrary.

After twelve years at an annual loss rate of 5%, only 569 students will remain for every 1,000. This is accounting only for an annual 5% dropout rate. This imminent problem is documented in the research; Ysseldyke et al.’s (2000) data is derived from national studies, yet the State of Washington claims the same attrition rate (OSPI, 2006). The salience of the crisis is easy to establish; its nature is more obscure.

Both the Frustration-Self Esteem and Participation-Identification models have been posited to help elucidate the disengagement/dropout process as it pertains to the transition into middle school. The Frustration-Self Esteem model holds that poor academic performance creates a loss of self esteem which then leads to resentment of the academic environment as a whole because it is viewed as being responsible for a student’s sense of impairment. Withdrawal is the defense mechanism for dealing with this perceived (or actual) attack. Alternatively, the Participation-Identification model maintains that those students who participate in school activities come to value a school’s culture and identify with it, those students who don’t participate feel marginalized and alienated, causing withdrawal (Dynarski & Gleason, 2002; Rumberger, 1995).

Supporting both the Frustration-Self Esteem and the Participation-Identification models, the data overwhelmingly agree that the most effective way to get someone to drop out is through grade retention (Barber 2004; Dynarski & Gleason, 2002; Goldschmidt & Wang, 1999; Rudolph et al., 2001; Rumberger, 1995; Vander Stoep et al., 2005; Ysseldyke et al., 2000). Indeed, holding a student back increased their likelihood to dropout eleven-fold (Rumberger, 1995)! This is far better known than another significant factor in the dropout process; the greater number of school transitions that a student goes through correlates with a student’s higher likelihood to drop out (Dynarski & Gleason, 2002; Rumberger, 1995; Ysseldyke et al., 2000).

Table 1.
Given 5% Annual Dropout Rate, Population of Students, Given Starting Population of 1000 Students Projected over 12 Years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
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<tbody>
<tr>
<td>1</td>
<td>1000 students</td>
<td>7</td>
<td>735 students</td>
</tr>
<tr>
<td>2</td>
<td>950 students</td>
<td>8</td>
<td>698 students</td>
</tr>
<tr>
<td>3</td>
<td>903 students</td>
<td>9</td>
<td>663 students</td>
</tr>
<tr>
<td>4</td>
<td>857 students</td>
<td>10</td>
<td>630 students</td>
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<tr>
<td>5</td>
<td>815 students</td>
<td>11</td>
<td>599 students</td>
</tr>
<tr>
<td>6</td>
<td>774 students</td>
<td>12</td>
<td>569 students</td>
</tr>
</tbody>
</table>
The transition from elementary into middle school is one of the most stressful of all school transitions (Barber, 2004). The simple changing of schools is exacerbated by the fact that many of the difficulties associated with this transition lie beyond the academic realm, the convergence of unparalleled physical, emotional, social, and intellectual development. It is trying to adapt to all of these factors simultaneously that complicates the transition into middle school. On this the literature is unanimous. Despite, or indeed due to, these hardships, early adolescence is the best time for intervention strategies and programming to help with this transition (Manning, 2002). To this end, this paper will shed light on the difficulty of the transition, examine existing transitional programs and suggest programs that should be carried out.

**Literature Review**

Three main themes arose during the review of the literature: a) concepts relating to the difficulty of the transition into middle school, such as “Transition Trauma,” grade trajectories (as indicators of student needs), and “anchor points;” b) the nature of the stress and distress of students resulting from the transition; and c) the creation of an environment responsive to student needs through transitional curricula and programming. These three themes will be discussed in this order.

**Transition Trauma, Anchor Points and Steadies, Sliders, and Rebounders**

Richardson (2002) developed the term “Transition Trauma” to describe students’ troubles with adjusting to a new school environment, both academically and socially. He believes that many of the adverse consequences of the transition into middle school – distress, academic under-achievement, and negative social behaviors – are manifestations of this trauma.

Koizumi (2000) studied the elementary to middle school transition through the perspective of “anchor points.” Anchor points are essentially landmarks around which one can create a cognitive map, a base from which to explore and understand a new situation. New friends, for example are anchor points. Through the aid of a new friend, conscious or otherwise, one can explore and interact with a new situation or environment, drawing upon the friend’s knowledge and abilities as a means for support, not to mention the benefit of sheer camaraderie. Language is one of the most significant anchor points – if a student is familiar with the dialect of a population or region then forging new relationships will be far easier. Anchor points can lead to other anchor points and thus a richer experience; conversely, a lack of anchor points leaves one to have to adapt to a new situation utterly alone. This lack of anchor points can cause psychological, social, or academic maladaptation and ultimately dropout (Koizumi, 2000). Lew (2006) supports Koizumi’s findings about anchor points, describing them in terms of dropout rates among recent Korean immigrants.

Wampler, Munsch, & Adams (2002) sought to understand academic decline in their study of grade trajectories across different ethnic groups. They studied a sample population of 473 students, 52% Anglo, 36% Hispanic, and 12% African-American. The study yielded three principal trajectories during the first year of middle school: “sliders,” typically White students, whose grades showed a consistent decline; “steadies,” typically African-American students, whose grades remained fairly consistent throughout the year; and “rebounders,” typically Hispanic students, whose grades reached their abyss at roughly the end of the third quarter, then rebound slightly. This study also noted the role that academic achievement plays for students in facilitating their adjustment to middle school.

Wampler, Munsch, & Adams (2002) contend that “when students do not succeed in school, they restructure their appraisal of the importance of school success in a way that protects their perceptions of self-worth. That is, school success becomes less important to the student” (p. 215). A teacher who is unfamiliar with a student can reinforce low academic achievement because of low expectations; when low expectations are met, this can be taken as a sign of low ability. By contrast, students whose grades initially fall and then recover may be seen in a more positive light than “sliders.” Based upon the trajectories, Wampler, Munsch, & Adams (2002) concluded that African-Americans were best equipped to handle the transition into middle school, as evinced by a relative steadiness in grades, whereas Hispanics exhibited the greatest struggles with the effects of transition, both academic and psychological, as determined by students’ grade point averages.

**Stress and Distress**

Berndt, Hawkins, & Jiao (1999) and Hardy (2002) examined the effect of friendship upon students during this transition from elementary into middle school. Adolescents often lose friendships or have them otherwise strained due to the disparity between emotional, physical, and intellectual development between friends. Peer relationships are often disrupted because of this developmental discord.
during the transition into middle school. Both of these studies also found that the relative ease of students’ adjustment correlates positively with the stability of friendships and quality of overall peer support. Hardy’s study departs from the rest of the data herein, in that Hardy’s sample population was Canadian; subtle cultural and systemic differences may skew the study’s results. Alternatively, Hardy’s study suggests that the lack of developmentally supportive schools is not limited to the United States.

Incorporating peer collaboration as opposed to independent student work is paramount to easing the transition into middle school, for it not only can strengthen friendships, but also create new friendships (as anchor points), thereby easing the transition into middle school (Berndt, Hawkins, & Jiao, 1999; Hardy, 2002). Peer assistance has also been found to help ease the transition for students with behavioral problems. Tobias & Myrick (1999) studied a population of approximately 2,500 problem-behavior students from eight middle schools in Florida. Their study found that school counselor-trained peer facilitators were able to help these problem-behavior students improve their attendance, grades, and feelings about school while decreasing behavior related referrals. Simply put, the inclusion of all involved parties (teachers, parents, students, counselors) adds to the formation of anchor points and therefore to a student’s support structure (Akos, Queen, & Lineberry, 2005).

Rudolph et al. (2001) related the difficulty of this transition to the concept of the “self-regulatory process.” They describe said process as the combination of behavioral, cognitive, and evaluative processes that guide goal-oriented action and responses. Figure 1 demonstrates how a negatively influenced self-regulatory process can lead to depressive symptoms. Maladaptive beliefs – those informed or created from frustration and/or low self-esteem or those that are reinforced by alienation or marginalization – lead to disengagement, which leads to stress, which leads to depressive symptoms, much the same as transition trauma.

Vander Stoep et al. (2005) used universal emotional health screening as a means to understand the difficulty of this transition. They screened 83% of the four participating Seattle middle schools, a total of 861 of the schools’ 1,034 students. The study’s results were striking – 15% (131 students) tested positive for emotional distress; of those 15%, 71% (93 students) were found to be displaying depressive symptoms, such as those listed by Richardson (2002), and 59% of those (77 students) were determined to need community support services that were not already in place. Additionally, the study mentioned that 20% of all students will undergo a major depressive episode before they turn eighteen (Vander Stoep et al., 2005).

The study was limited in two ways: first, students with very limited English proficiency and those with severe developmental disabilities were excluded from the sample; second, the study only sampled student populations from one district, eschewing a broader population. Because of these two shortcomings this study warrants further research. Though, related findings reinforce the idea that depressive symptoms increase in the transition to middle school (Barber, 2004).

Figure 1.  
*Theoretical Model of the Proposed Self-Regulatory Sequence within the Academic Domain. Taken from Rudolph et al. (2001).*
Fear of the unknown can elevate a student's risk for depression and most preadolescents don't know what to expect upon entering middle school. Students’ pre-transition concerns were almost universal -- the same concerns were found throughout almost all of the literature: the increased level of homework to be assigned, lockers, bullying, getting lost between classes, and academic success (Akos, 2002; Akos & Martin, 2003; Akos & Galassi, 2004; Akos, Queen, & Lineberry, 2005; Barber, 2004; Berndt, Hawkins, & Jiao, 1999; Brighton, 2001; Deemer, McCotter, & Smith, 2003; McGrady, 2001; Reynolds, 2005; Rudolph et al., 2001). Two studies of student perceptions of the transition into middle school (Akos, 2002; Akos & Galassi, 2003) compared student concerns before transition with what students found to be the hardest parts of the transition in retrospect; according to Akos (2002) and Akos & Galassi (2003) bullying was the only pre-transition concern found not to be a major stressor when students reflected on their experiences during the transition.

Deemer, McCotter, & Smith (2003) examined the transition into middle school that took place within a school district near a university. One of this study's discoveries stands out: between 25% and 50% of students undergoing the transition from elementary into middle school are at risk for negative self-perceptions, negative affect, and maladaptive behaviors. Deemer, McCotter, & Smith (2003) and Mullins & Irvin (2000) found students felt more disconnected from school once they made the transition into middle school; all students reported liking school less each successive year. Every change in grade level brought with it a decrease in academic, personal, and social functioning (Barber, 2004) and every move to a new school brought with it a 30% increase in a student’s likelihood to drop out (Rumberger, 1995). In trying to adapt to a new environment, student motivation also suffered; a desire for achievement was supplanted by a fear of getting in trouble: the student response to the survey question, “what makes a good day for you?” was “when they did not get in trouble with a teacher or someone else in school” (Deemer, McCotter, & Smith, 2003, p. 7).

Forgan & Vaughn (2000) focused on how the transition affected both students with and without learning disabilities. They noted that the available data suggests that the transition to middle school brings with it a decrease in students’ academic performance and competence. This was attributed largely to changes in the school environment that middle school entails: the switch to multiple teachers and classrooms, larger, more impersonal student populations and higher degrees of teacher control.

In stark contrast to other studies cited, Forgan & Vaughn (2000) found relatively stable self-concept and friendship quality during the transition. It is noteworthy, however, that the sample population for this study was only fourteen students, seven with learning disabilities and seven without, all of the same ethnicity; thus, the ability to extrapolate its findings unto a larger population is in doubt. Studies both before, Chung, Elias, & Schneider (1998), and after, Deemer, McCotter & Smith (2003), compiled data from much more diverse samples; they found a much greater amount of stress and distress in students’ lives. For example, ten to twenty percent of students “felt as though they were neither succeeding in school, nor had the support systems necessary to succeed” after they had made the transition into middle school (Deemer, McCotter, & Smith 2003, p. 6). These studies draw from populations of 99 students (Chung, Elias, & Schneider, 1998) and 718 students (Deemer, McCotter, & Smith, 2003). One can conclude that either the data from Forgan & Vaughn’s study (2000) is a stark aberration and should be dismissed as such, or the means employed by the sample population’s teachers are extremely effective and bear dissemination.

**Transition Programs: Creating Student Responsive Environments**

Three researchers conclude that schools have a clear obligation to provide assistance to students who need it instead of letting them (or causing them to) fall to the wayside, causing disengagement to metastasize into withdrawal (Dynarski & Gleason, 2002; Lovitt, 2000; Rumberger, 1995). All of the research points to a need for curricula to better address this problem. These disparate studies all had similar suggestions as to the nature of the programming to be offered: the programs should incorporate students, peers, parents, teachers, and counselors; the programs should be developmentally appropriate; the programs should facilitate communication between all parties; and student input and feedback should be sought and implemented regularly, adapting as students’ needs change (Akos, 2002; Akos & Martin, 2003; Akos & Galassi, 2004; Akos, Creamer, & Masina, 2004; Akos, Queen, & Lineberry, 2005; Anfara & Brown, 2001; Berndt, Hawkins, & Jiao, 1999; Brighton, 2001; Deemer, McCotter, & Smith, 2003; Dynarski & Gleason, 2002; Hardy, 2002; Manning, 2002; McGrady, 2001; Reynolds, 2005; Rudolph et al., 2001; Rumberger, 1995; Shoffner & Williamson, 2000).

Brighton (2001) found that any programs should address three specific ideas: confidence, continuity, and change. He found that the building of student confidence can ease the stress of going from being
the biggest and oldest students in a school to being the youngest and smallest. Additionally, Anderman, Maehr, & Midgley (1999) attributed many of the problems associated with the transition to ecological differences between elementary and middle school. The transition is simpler when there is little disparity between the old and new scholastic environments; students find comfort in continuity (Chung, Elias, & Schneider, 1998; McGrady & Nestor, 2001). This is a period of enormous change affecting all areas of a student’s life. Programs that take this into account and work with the changes that students are going through, rather than against them, will yield a smoother transition (Akos, Queen, & Lineberry, 2005; Shoffner & Williamson, 2000).

Akos, Queen, & Lineberry (2005) propose a novel suggestion that middle school teachers should spend a day (or more) teaching at the various feeder schools, familiarizing themselves with incoming students and those students’ needs. Further, if middle school counselors travel to the feeder schools, familiarizing themselves with incoming students, then students will be more likely to seek the counselor’s help since a rapport has already been established. Another suggestion is for middle school guidance counselors to provide special sessions for departing elementary students. McGrady & Nestor (2001) found that having incoming students “shadow” current middle school students, follow them around for a day, helped to ease the transition. Akos & Martin (2003) extended this idea by positing a pen-pal program between incoming elementary students and middle school students. They felt that this would allay student fears and help them to participate in their new school environment. A ceremony signifying the rite of passage, a clear demarcation of where elementary school ends and where middle school begins, yielded the same results: an ease in the students’ transition (McGrady & Nestor, 2001).

Other studies, while not designing new programs, examined existing transition programs. Akos, Queen, & Lineberry (2005) described two such programs. The first took place in an anonymous Midwestern middle school from March to June. In March the middle school distributed and collected data sheets detailing demographics and student concerns. In May the middle school’s counselors traveled to the feeder schools to talk with students to try to allay their fears and offer what assistance they could. Finally, in June, parents and students are invited to an open house at the middle school.

The other program is based in Stetson Middle School in Westchester, Pennsylvania. Starting in April, the Assistant Principal and guidance counselors visit and confer with the feeder schools and their students, the various department chairs and co-chairs meet with elementary teachers to make recommendations to students and to discuss expectations of students, guidance counselors discuss the transition with their elementary school counterparts, and elementary students discuss the upcoming transition at length with their teachers. In May, Stetson’s principal participates in the feeder schools’ PTO meetings, elicits feedback from elementary students, and a pen pal program is initiated, pairing incoming students with a sixth-grade “homeroom buddy.” Stetson’s transition program ends in August, culminating in a half-day transition camp at the middle school, wherein students learn the layout of their new school, learn about rotating schedules, and learn to use a locker.

Stetson is not the only school to feature a camp as part of its transition program; Raleigh County, West Virginia utilizes one as well. The program, started as a dropout prevention program, features a camp that is composed of four one-week sessions over the course of the summer (McGrady & Nestor, 2001). The camp largely consists of arts and crafts and socialization activities. Afternoons, twice a week, are spent at the local pool, and one afternoon features a trip to nearby New River Gorge National Park. The camp concludes with a production by a local outdoor musical theatre company. In addition to offering the camp, Raleigh County participates in the shadowing activity. McGrady & Nestor (2001) found that after the camp, parents noticed in their children a much higher enthusiasm for middle school than before the camp and that, as a result of the shadowing activity, students came out better adjusted to middle school, exhibiting much lower levels of anxiety than before and greater familiarity with the middle school environment.

Implications for Practice

The foremost implication is that it is inadequate, and indeed may even be harmful, to send students to middle school with little or no preparation – while the young are physically resilient, the stress and anxiety they undergo is just as salient as it is for adults.

That said, how to properly proceed is not yet clear. The first step with any sort of trauma, as Richardson (2002) asserts that this is, is triage. During this time it is important not only to identify the nature of distress but individual stressors as well. Both of these tasks can be done a number of ways. At one end of the spectrum, Akos, Queen & Lineberry (2005) used simple questionnaires as a means to diagnose students’ problems and worries. This has the advantage of being quick and easy and, therefore, may lend itself to schools and districts with
larger populations, and thus less time for individual work with students. Vander Stoep et al. (2005), on the other hand, instituted a systematic, in-depth emotional health screening. While this deeper analysis is always going to be more fruitful, larger districts may find it cumbersome both in time and resources, due to its broader scope.

Figure 2 shows how specific aspects of programs designed to ease the transition between grade bands can be used to combat the two dropout models discussed earlier, Frustration-Self Esteem and Participation-Identification. On the left, counselor involvement (Akos, Queen & Lineberry 2005), the creation of a continuity of environment (Brighton, 2001), diagnostic screening of mental health (Vander Stoep et al., 2005), the creation of developmentally appropriate environments (Manning, 2002) and peer facilitators (Tobias & Myrick, 1999) can all be used to help those entering or entrenched in the Frustration-Self Esteem model. On the right, an open house (Akos, Queen & Lineberry, 2005), orientation session (Akos, Creamer & Masina, 2004), pen-pal program (Akos & Martin, 2003), rite of passage or even a summer camp (McGardy & Nestor, 2001), can assist students to identify with and participate more in their school environment. The diagram also illustrates how creating anchor points, increasing a student’s support network and increasing community involvement can intervene through either model (Koizumi, 2001; Lew 2006).

That said, what is to be done once stressors and distresses have been identified will depend highly on a particular school or district’s resources and populations. Districts of any size and population can easily put pen-pal programs into practice, as well as require that incoming students, and their parents, attend middle school PTO meetings. Larger schools may opt to create a group of transition peer-facilitators, as the workload on busy staff is lightened.

Smaller, wealthier, or otherwise enabled districts and schools may choose to host a summer camp, as McGrady & Nestor (2001) described. However, the costs of acquiring a location for a week long summer camp may prohibit many schools and districts from implementing this systematically; Stetson Middle School’s day camp is a far more economical alternative (Akos, Queen & Lineberry, 2005).

Another concern that needs to be addressed is the school environment itself. Every change of school, regardless of grade level, heightens one’s risk of dropping out (Barber, 2004). Putting into practice Brighton’s (2001) emphasis on confidence, continuity and change, creating an environment that is as supportive as elementary school, yet that emphasizes growth, can help mitigate this stressor.

Many courses of action have been proposed for avoiding and ameliorating Transition Trauma within this paper, but every district and every school will have to work out their own particular plan of action. What is important is that something is done. The data clearly indicate the level of damage that students are forced to undergo during this transition.

Figure 2.
Aspects of Transitional Programming and the Dropout Models That They Address.
Conclusion

Suppose attending school were viewed as a job … a company concerned about its high rate of employee turnover might adopt a policy of meeting with employees one on one and asking straight questions: “Why are you unhappy here?” “Why don’t you like your job?” “What can we do to make you like your job more?” … a school that does not address its dropout problem does not face the threat of having to go out of business, as would a company that loses its employees (Dyanski & Gleason, 1995, pp. 66-68).

It is not enough to cite withdrawal and dropout models as the cause for the dropout crisis; their causes must be investigated too. The data show that stressors and developmentally inappropriate environments can lead to withdrawal and dropout behavior (Goldschmidt & Wang, 1999; Manning, 2002; Rumberger, 1995); further, the middle school transition is where much of this developmental inappropriateness stems from, bringing with it the personal and academic trauma that can lead to maladaptive behavior, academic failure and even depression (Richardson, 2002; Rudolph et al., 2001; Vander Stoep et al., 2005).

The literature also shows that if teachers, counselors, and administrators can be more sensitive to students’ needs at this pivotal stage of growth, then perhaps the withdrawal/dropout process can be mitigated. To mitigate stress, some programs have tried to foster middle-school environments that provide newcomers with a sense of continuity and promote communication between schools, students and families, while others have tried to bridge the gap between the schools on an individual level through pen-pal programs and screenings for mental health issues.

Despite the extent of the research, both in time and subject, some areas for further study remain. The data from Forgan & Vaughn’s (2000) study warrant the application of their methods to a broader population, as does the mental health screening from the study conducted by Vander Stoep et al. (2005). All of the studies within that paper which were conducted before 2001 should be revisited, given the systemic changes that education has undergone since the enactment of the No Child Left Behind Act. The reassessment of both Rumberger (1995) and Goldschmidt & Wang (1999) would be particularly useful, as they address the heart of the dropout crisis.

Without transitional programming of this sort, or indeed any at all, our schools are not adequately preparing students for the transition into middle school. Students who struggle in the wake of the transition lose faith in schooling and in themselves. These maladaptations are often the first steps toward withdrawal and dropout (Dyanski & Gleason, 2002; Rumberger, 1995). A number of preventative measures have been described, but they all share a basic idea: the simple acknowledgment of the hardships preadolescents face in growing up and adjusting to new places and new people amidst the turmoil of puberty.

References


Classroom Management of Behaviorally Challenged Children

by Jeff Ennett

Educational researchers have studied both standard and recent behavior management methods developed for use in classrooms with behavior disordered (BD) students. A survey of educational research literature regarding this topic confirmed teachers need specific training in methods of BD student management. Data analysis from validated research of five specific behavior management methodologies was completed for this study with the aim of summarily determining the potential each methodology had to offer in terms of applicability and effectiveness. Methods reviewed were: (1) Pre-Referral Assessment and Planning, (2) Behavior Modification (Positive Behavior Support, Cognitive Behavior Management, Comprehensive Classroom-Based Education), (3) Teacher Supportive Intervention (Teaching Scripts, Setting Events, Cognitive Behavior Education), (4) Group Work Methods of Behavioral Re-Education, and (5) Interpersonal and Therapeutic Methods. Recommendations for application and practice are suggested.

Introduction

Increasing numbers of elementary school children come to school ill prepared to learn largely due to emotional and behavioral problems including noncompliance, defiance, and aggression of a degree that exceeds developmentally normal ranges of child development (Short & Shapiro, 1993). Much stigma and diagnostic confusion is associated with such children, and there is no single behavior classification for this group found to be educationally relevant for use by teachers (Paul & Epanchin, 1991). As a result, such children have come to be loosely referred to as Behavior Disordered or Behavior Disturbed, either or both terms being shortened to BD by those in circles of public education and mental health.

Once anticipated to be a method of dealing with students displaying BD behavior, incorporation of “zero tolerance” policies as punitive reaction has often resulted in actually heightening the incidence and severity of BD student misbehavior in class (Safran & Oswold, 2003). Educational research has demonstrated well planned, preventive methods of intervention with BD children are effective in establishing and maintaining a positive learning environment; further, the teacher’s correct application of the method selected is as crucial to success as is selection of the method itself (Meadows & Melloy, 1996; Myles & Simpson, 1994). For this reason, methods of classroom management selected for use with students determined to be behavior disturbed must receive ongoing research, the most effective methods identified, and made available to public school teachers.

Disruptive behavior in our public schools has progressively increased in frequency and seriousness over the last several decades. A large part of this trend appears related to increasing rates of BD children entering our schools. In other cases, BD students’ acting out has a transfer effect whereby generally mischievous students are encouraged to challenge the school’s expectations of student conduct (Webb, 1992). In some cases, disruptive behavior manifested by BD students may be influenced by physiological factors such as endocrine, hormonal, and chemical imbalances. In these situations the conduct of BD students is related to interplay of neurological difficulties, or may result from specific psychiatric, psychological or incidence of major trauma that has occurred in the life of the child (DMS-IV Diagnostic and Statistical Manual of Mental Disorders, 1994).

More recently, the impact of domestic violence and emotional/physical neglect has been strongly associated with changes in the physical structure of the brain leading to intellectual difficulties and behavior problems. The child manifests this through disruptive behavior at school and within his/her peer group including strong resistance and refusal to follow teacher direction, explosive temper tantrums, and oppositional defiance of authority figures (Wilson & Horner, 2005). Furthermore, conduct disorder, physical aggression, and assault are all typical of children classified as behavior disordered. BD students far exceed what is considered normal development in school age children (DSM-IV Diagnostic and Statistical Manual of Mental Disorders, 1994). Eventually by the time these students reach high school, they have usually dropped out at rates averaging 50% to 60% (Nelson, 1996).

The majority of individuals are able to make necessary adjustments in dealing with adversity and continue along a course of socially acceptable behavior. Beyond the usual challenges that are encountered along the way toward maturity, some children are confronted with major psychological trauma and/or are victims of various other etiological factors that eventually manifest themselves in a wide array of BD students. Many years of educational...
research related to classroom management of the BD child has resulted in nearly as many approaches dealing with BD students as there are the varieties of behavior disorders these students present. Consequently, the scope of this paper is limited to a literature review of recent research specific to behavior change and classroom management methods that have proven helpful in dealing with BD students. Methods of BD management in the public school have been categorized according to their methods of application and effectiveness to impact specific forms of problem behavior demonstrated by BD students. Each method category presented is followed by discussion and assessment as to its relative effectiveness.

Literature Review

Brief Historical Overview Considering Social, Cultural and Political Contexts

Increasing numbers of elementary school aged children exhibit seriously disruptive behavior at school including strong refusal to follow teacher direction, oppositional defiance, aggression, and conduct disorder behavior that includes physical aggression. This behavior exceeds what is considered normal development in school age children (DSM-IV: Diagnostic and Statistical Manual of Mental Disorders, 1994).

Those in the field of education largely avoid using the term “emotionally disturbed” when discussing these students as much stigma and diagnostic confusion is associated with such a label, and there is no single behavior classification for this group of children that is educationally relevant for use by teachers (Paul & Epanchin, 1991). As a result, the field of education has come to frequently use the term behavior disordered (BD) as a common designation in referring to students exhibiting one or more of the behaviors noted throughout this paper.

Inexperienced teachers as well as many veteran teachers often feel overwhelmed dealing with BD children and their presence in class serves as a detriment to maintaining an effective teaching environment. Teachers’ attempts to contain disruptive student behavior are often sought through traditional and outdated disciplinary practices aimed at strict control, punishment of the offender, or his/her exclusion from the class (Rogoff, 2003). Such measures have often led to overemphasizing negative consequences in the classroom. In reaction BD children often escalate or display aversive behavior in an attempt to avoid class work. Due to this issue teachers avoid confronting BD children by assigning them very simple tasks to keep them “busy” for the remainder of class (Gunter & Jack, 1994).

From studying BD children within the context of their own families, researchers have concluded that much of their disruptive and aggressive behavior began as an attempt to alter dysfunction within the family enough to ensure their own psychological and emotional survival (Taba & Elkins, 1968). Once learned, BD children carry this behavior tactic to school and into the larger society as a psychological shield against a world where they expect teachers and other students to devalue or reject them. Academic failure, apathy and anger toward school soon follow (Quinn & Jannasch-Pennell, 1995). BD children must be helped to replace their disruptive behavior patterns with positive social skills conducive to successful functioning and learning in the school setting. One of the most effective approaches in this regard is found in the methodology and strategies of social learning theory applied through the practice of behavior modification, a method in use throughout the nation’s school systems. Behavior modification may be defined as the teacher’s purposeful manipulation of positive or negative antecedents and consequences of particular student behaviors for the purpose of strengthening or weakening their expression (Hayatt & Rolnick, 1974).

I. Pre-Referral Assessment and Planning

The Pre-referral Intervention Team is a collective professional group comprised of the student’s assigned teacher, special education consultant, school psychologist, school counselor, and the student’s parents. Their combined goal is to generate effective behavioral intervention plans for the individual student through completion of a multidimensional study of the child’s personality characteristics and functional assessment of the BD student’s behavior patterns (Paul & Epanchin, 1991; Short & Shapiro, 1993). With first detection of BD behavior in elementary school children, teachers should consider the possibility the child may have underlying mental health issues and seek pre-referral assessment.

Pre-referral intervention with BD students has been demonstrated to be valuable in understanding causal factors related to BD behavior. Lane, Mahdavi, and Borthwick-Duffy (2003) found pre-referral assessment to be instrumental in facilitating BD intervention planning. However, pre-referral intervention has thus far received only limited attention from the educational research community. Little or no research exists related to the use of pre-referral outcome measures as an intervention method specific to dealing with BD students. The potential that pre-referral assessment does present is limited to supporting standard behavioral methods of intervention. The full potential of pre-referral
intervention lies largely undeveloped. However, Del’Homme and Kasari (1996) suggest educational research should be aimed at determining how results of pre-referral assessment may be used to facilitate identification and matching BD with the most effective methods of BD intervention.

Pre-referral intervention with BD students has major support in the public schools due to its nature as a collective professional intervention specialty in the field of education (Fox, Conroy & Heckaman, 1998). However, for all its value as a diagnostic and intervention planning method, the pre-referral intervention team is prone to problems such as parental resistance and wide variation in teachers’ abilities to carry out intervention plans. A study by Lane, Mahdavi, and Borthwick-Duffy (2003) found that of students selected for pre-referral intervention 85-90% were not concerned about their BD behavior, nor were they aware that their disturbance in class was having a negative impact on other students.

A small number of elementary school children demonstrating BD behaviors receive pre-referral assessment for school service intervention due to time constraints of teachers, school counselors and others necessary to complete a holistic assessment of the child. In terms of referral, Del’Homme and Kasari (1996) noted a disturbing trend that ethnic or cultural differences between students and schools may affect referral rates to pre-referral intervention programs as students from ethnic minority backgrounds were over represented in referral rates.

II. Behavior Modification

In surveying professional educational research pertaining to behavior modification as used with BD students in classroom settings, three major methods of application are described: Positive Behavior Support (PBS), Cognitive Behavior Management (CBM), and Comprehensive Classroom-Based Education (CCBE).

Teachers’ attempts to contain disruptive student behavior are often pursued through traditional and outdated disciplinary practices aimed at strict control, punishment of the offender, or his/her exclusion from the class (Rogoff, 2003). BD children must be helped to replace their disruptive behavior patterns with positive social skills conducive to successful functioning and learning in the school setting. Application of behavior modification methods with BD students is carried out through a variety of programmed formats including positive reinforcement programs, token economies, contingency reinforcement, time out, differential reinforcement, and other systematic applications oriented toward behavior change (Simpson, 1998).

PBS methodology is based upon a functional assessment of what is considered to be the BD student’s most severe or disruptive forms of acting out, precise identification of specific reinforcements, the environmental, interactive and situational “triggers” thought to initiate the BD disruptive acts (Fox, Conroy & Heckaman, 1998). This information is then used in designing an effective plan for intervention, particularly in terms of teaching positive behavior skills to replace negative and disruptive behavior. In their study, Ruef, Higgins and Glaeser (1998), noted this intensive research-based practice includes a database decision-making tool that when used in collaboration with the BD child’s teacher results in substantial behavioral improvement for many children.

PBS research noted that with BD students there appears to be a disturbing rate of the failure of PBS changes to transfer beyond settings where students were provided direct PBS methods and instruction (Wenar, 1994). Safran and Oswald (2003) found only a few reports of professional research specifically concerning the use of PBS as a regular program in use throughout the school with BD students. As a result, accuracy of positive conclusions concerning PBS should not be assumed.

CBM programs operate on the principle that by changing the way the child thinks, their behavior will also change. Cognition itself becomes the focus of intervention in helping the BD child to learn, develop, and increase personal management skills (Swaggart, 1998). Teaching these children to track both their behavior and academic work habits through CBM is facilitated through intermittent reminders, unscheduled and scheduled reinforcement. In the CBM approach, coaching and feedback techniques are used to increase the BD child’s cognitive awareness of his/her own behavior, how it directly affects the classroom learning environment, peers, and social experiences. CBM teaches the student to personally evaluate his/her own behavior through scheduled and unscheduled intermittent “check-ins” requiring completion of self-observation. As new positive behavior skills are learned and practiced, positive reinforcement is issued for being on target (Phillips-Hershey & Kanagy, 1996).

With specific reference to CBM as an intervention method with BD students, Swaggart (1998) found those who tend to function somewhat independently and have the cognitive language ability required to carry out self-instruction and
monitoring, are most likely to profit from CBM. BD students lacking in these areas were less likely to achieve a level of positive behavioral functioning beyond pre-intervention assessment findings.

CCBE programs demonstrate an array of behavior modification methods carried out through programs combining a therapeutic group care environment with a special education component. Reitz (1994) noted that CCBE programs provide practical support in working with BD students and have demonstrated to be an effective intervention method for BD students. Usually, both the milieu treatment program and the school are located on the same site and function in conjunction under an overall token economy system. For most BD students, the highly structured living environment of the residential and classroom-based programs provide them with a sense of security, predictability, and trust that has been missing from their lives, and the loss of which has served to feed development of their BD behavioral profile.

CCBE as a method of intervention appeared to have no real counter arguments as to its effectiveness as revealed in the educational research literature reviewed for this paper. The single most reported problem noted with use of the CCBE method is the requirement of a very high staff-to-child ratio and the need for highly trained teachers with experience in dealing with BD students in order for this approach to demonstrate its potential effectiveness in management and behavior change with BD students.

Research in the area of CCBE has confirmed that behavior modification methods when implemented and carried out through uniform and standardized school-wide organizational practice with BD students were found highly effective (George, Harrower, & Knoster, 2003; Nelson, 1996). Studies reviewed pertaining to behavior management in school-wide settings stressed the necessity of their administration and regular review by a leadership team that provided effective behavior support, significantly increased the school’s capacity to provide quality instruction to students and consistent behavior management policies regarding students. No educational research studies were found that were specific to behavior management of BD students in milieu education/residential treatment that presented contrasting or conflicting studies comparative to Nelson (1996) or George, Harrower and Kostner (2003). As a result, this paper is unable to confirm effectiveness of behavior modification methods used in milieu settings beyond that which appear in the studies themselves.

Those in the field of education who support the use of behavior modification in public schools stress that its methods are applicable with most students, especially in elementary school settings. Others point to an impressive research history of behavior modification serving as an effective change agent. When behavior modification principles are applied by the teacher through the program methods of PBS, CBM, and CCBE, they prove very effective with nearly all students (Fox, Conroy & Heckaman, 1998; Gunter & Jack, 1994; Reitz, 1994; Simpson, 1998; Swaggart, 1998). Those less impressed with the success of behavior modification point to the fact that to be most effective, the behavior modification program method at school should be replicated in the student’s home. However, parents are not consistent in applying the principles involved. This often results in undermining attempts to change BD behavior in the classroom (Weiner, 1994).

III. Teacher Supportive Intervention

As a population, BD students are more prone to learning disabilities, failure to understand directions, and suffer a sense of incompetence with regard to mastering material presented in class. Facing this frustration, BD students often become disruptive or belligerent in order to manipulate their removal from class and avoid a painful and embarrassing situation (Ruef, 1998; Shukla-Meha & Albin, 2003). Early on, the teacher must find ways to help BD students understand methods of problem solving in various and sometimes unique ways and to cope with the material presented. This goal is to increase the BD student’s self-concept as a capable learner, build confidence and a more positive attitude toward school. BD children tend to become anxious and very impulsive when confused by verbal or written instructions from the teacher. They are equally intimidated by taunting of peers for their failure to understand problem solving or providing incorrect answers. This often results in the BD student becoming enraged and aggressive towards others. Teachers may help these students by using the methods of: Teaching Scripts, Setting Events, and Cognitive Behavior Education (CBE) (Gunter & Reed, 1997; Prater, 1994; Searcy, 1996).

Increasing the amount of problem solving information provided to students through scripting, prompting, and coaching problem solving “hints” are successful strategies in providing such information to students. In a study Keffe and Hoge (1994) found that disruptive behavior of students decreased when more task-related information/scripts were provided to them. This was a replication of a study where providing teaching scripts to students prior to asking them to answer questions regarding subject content resulted in decreasing disruptive behavior in the classroom. In a study, Gunter and Reed (1997) using task related information/scripts found that correct
behaviors dropped from one per minute to one every five minutes.

However, in the rush to carry out required curriculums, teachers may overlook details of subjects presented to the class. Keefe & Hoge (1996) noted that more than 80% of the time students are requested to perform tasks without being given adequate information necessary to process a problem, leading to increased frustration and resistive restlessness.

The use of Teaching Scripts such as brief, short-cut pointers to facilitate problem solving using analogies, prompting, and encouragement have proven to be successful as a method of intervention. Through carefully reviewing and assessing the BD student’s previous school records, the teacher can select Teaching Scripts that may be of particular help and fit the individual learning style presented by the students. The development and use of scripted lessons requires significant time be spent by the teacher to be able to ensure students can comprehend specifically aligned information (Quinn, 1995). Even with knowledge of such methods, the time that teachers need to practice instruction sequence before scripts are put into use and planning in gradual fading of scripting was of concern (Gunter & Reed, 1997).

Setting Events are the contextual factors of the physical setting and social composition of the classroom that affect ongoing interactions between students, teachers, and classmates. Interviews with parents and former teachers regarding environmental effects that “trigger” a BD child’s acting-out behavior is of great value in identifying critical proximity factors, schedule/curricular events, and other potential trouble spots. For example, many BD children feel an extremely escalated state of anxiety as a result of breakdown in daily predictability of scheduled classroom activities, or intense hostility when last minute changes of events become necessary. Such information is of significant value in identifying and averting potential conflicts during the school day.

Conroy and Fox (1994) recommended that Setting Events should be carefully considered when planning individual BD student behavioral remediation intervention programs. Searcy (1996) confirmed the direct relationship between positive setting events in the classroom and successful engagement occurring among students. This included engagement between the teacher, students, and peers within small groups as well as students’ positive compliance with teacher direction. Rimm-Kaufman, La Paro, Downner, and Pianta (2005) also found that noncompliance and off-task behavior was significantly reduced in classrooms where Setting Events had received careful attention, planning, and appropriate management by the teacher.

Use of Setting Events as a preventive measure of BD students has proved to be beneficial in lowering the incidence of BD behavior in the classroom (Rimm-Kaufman et al., 2005). Teachers can also use this technique in planned avoidance of certain situations, activities or their scheduling that has the potential to initiate anxiety, panic or other behavioral acting out of BD students.

CBE is a cognitive-based intervention strategy that teachers use with young children to teach improved interpersonal safety and coping skills, increase self-esteem, and support academic goals. Such intervention can offset the tendency of BD students to internalize their pain and frustration, resulting in explosive temper tantrums and similar disruptive behavior in class. Application of the CBE method is similar to CBM with the student being trained to apply self-management skills (Webb, 1992). Over time, the teacher systematically reduces these prompts as the student’s behavior meets the predetermined target level of performance (Prater, 1994).

CBE has been demonstrated to be an effective intervention method in teaching coping skills, building self-esteem, and self-confidence in the student. Such intervention can offset the tendency of BD students to internalize their pain and frustration, resulting in explosive temper tantrums and similar disruptive behavior in class. Of the educational research literature reviewed, there appeared to be no arguments against the CBE method used in dealing with BD or other students.

In summary, other than the extra time required in planning, consultation, and administration of Teacher Supportive Intervention methods, the survey of educational research pertaining to this method was positive. There were no points of view expressed that perceived Teacher Supportive Intervention methods as unproductive in teaching or working with BD students as a group. As a method of intervention with BD students, it is perceived supportive to development of a positive teacher-student relationship; therefore, contributes to overall effectiveness in dealing with BD students.

IV. Group Work Methods of Behavioral Re-Education

The use of teacher facilitated, small student group meetings that support an orderly and well-managed learning environment have also been successful in building and maintaining positive support between students in the classroom (Cohen, 1994). These cooperative learning groups can be
adapted to helping BD problems (Carpenter & McKee-Higgins, 1996). Through the teacher’s guidance of supportive confrontation by members of the student’s peer group, the BD student is helped to understand how his/her behavior has negatively affected group members, how it has been disturbing to the class as a whole, and why the student’s BD behavior must stop. The group work methods of behavior re-education surveyed in professional educational research literature reviews include: Peer Confrontation (PC) and Positive Peer Reporting (PPR).

PC is an effective group work method of behavioral re-education used to initiate positive behavior changes among classmates (Cohen, 1994). Teacher directed and peer mediated problem solving groups are guided by the teacher in working together to achieve a common goal. While reaching the group’s identified goal in a team effort appears to be the objective, it is each individual student’s encounter with fellow peers in successful mediation, give and take, and mutual cooperation that is the true learning objective of the teacher.

PPR has been shown to increase initiation of positive social contacts between peers (Skinner, Neddrenriep, & Robinson, 2002). BD children in unstructured group settings are more likely to be rejected by peers and find fewer opportunities for positive interaction. Often BD students are separated from one another in class due to their tendency to provoke BD acting out from one another. As a result, this separation creates a situation where BD students have fewer opportunities to exercise more functional skills with each other (Keefe & Hoge, 1996).

In using the PPR method, Meadows and Melloy (1996) noted that with teacher instruction accompanied by modeling of specific pro-social skills, peer conflict was effectively reduced. Similar PPR approaches such as the Good Behavior Game, (Tankersley, 1995), the Good Student Game, (Babyak, Luze & Kamps, 2000), and the Circle of Friends, (Frederickson & Turner, 2003) reported facilitation of pro-social behavior among group members, reinforcement of appropriate classroom behaviors, and an increase of on-task behaviors. These intervention methods have proven useful in facilitating the growth of positive behavior in BD student group members, with the result that perceptions of BD group members by non-BD students became increasingly positive. In addition, positive perception of BD students by the majority of class members continued to increase over time.

Group work methods of behavioral re-education have gained wide acceptance in the field of education. The use of PC and PPR to achieve behavioral re-education has been successful when implemented. In that the BD student has more often than not experienced very little in the way of acceptance or approval from others, reinforcement provided through group acceptance, support and praise from peers and teachers is of critical importance. In this, the BD student’s peers look to the teacher for cues indicating if the BD child’s behavior change has been worthy of praise or not, and to follow the teacher’s lead. Quinn and Jannasch-Pennell (1995) found that where BD students experienced peer acceptance and a sense of belonging, more positive behavior tended to follow along with increasing academic success of the BD student. In their study, BD students became significantly less inclined to seek out BD peers for acceptance and a sense of power.

Educational research studies reviewed concerning group methods of behavioral re-education cited the need for increasing research into greater understanding of how specific variables of personality between teachers and students may impact the teacher-student relationship. The experience, influence, and mentorship of veteran teachers was cited as a helpful resource for inexperienced teachers in correcting the difficulties encountered by their inexperience in working with BD students and application of methods as noted above.

Little is written in educational research literature concerning the uses of group work methods cited in this paper specific to behavioral re-education of BD students. In addition, no other educational research studies citing comparison or criticism of group work effectiveness with BD students were available for review. Therefore, without this information we cannot assume effectiveness beyond that cited in the studies reviewed.

V. Interpersonal and Therapeutic Methods

The quality of the relationship between the teacher and student influences the success of a teacher as an effective agent of change. In initiating any method or technique of positive behavior change in the BD student, its success is strongly dependent on the qualities of warmth, empathy, and genuine caring expressed by the teacher for the student. Interpersonal and therapeutic methods of behavior change in this category include: Teaching use of I-Messages and Brief Individual Therapy.

I-Message techniques are taught through role-play and skits promoting positive interpersonal communication between students that can effectively reduce the BD student’s tendency to become disruptive during class. Using this method, teachers model positive and assertive expression for students rather than reactionary confrontation. I-Messages
provide students with the ability to act on behalf of themselves in a positive manner when dealing with personal anger, restricting the sense of blaming or threatening, and helping to resolve disagreement and conflict. Phillips-Hershey and Kanagy (1996) have confirmed successful use of I-Messages during anger escalating situations in de-escalating the possibility of conflict. In addition, it was confirmed that it is not enough to simply decrease or eliminate negative behavior through I-Message peer confrontation. Promotion of appropriate replacement behavior that is incompatible with the negative behavior is necessary for success.

Brief Individual Therapy with BD students is accomplished within a series of short term, highly focused, and intensive counseling sessions that may be part of behavioral assessment and intervention methods previously discussed throughout the body of this paper. Brief Individual Therapy may also be useful as an additional support to individual students who lack confidence that they will be able to eliminate BD behavior using only the previously mentioned methods of intervention alone. The Mental Research Institute applied a brief therapy model with the traditional behavior modification method to increase the pace of BD problem resolution. School staff was encouraged to respond accordingly to the child’s new, more positive behavior and, in effect, become agents of change themselves. In a study by Amatea and Sherrad (1991) it was found that provision of a wider array of peer and teacher reinforcement in response to the student’s new behavior progressively helped the student feel less troubled and increased both self-esteem and the desire to demonstrate further positive behavior.

Due to the lack of educational research studies available on the use of I-Messages and Brief Individual Therapy, no contradicting studies regarding Interpersonal-Therapeutic Methods were able to be assessed. From the lack of contrasting findings and their discussion appearing in research reviewed, this paper is unable to assume the effectiveness any of these methods hold beyond statements that appear in the material surveyed.

**Conclusion**

This paper indicates that Pre-Referral Assessment and Planning can be used to generate an effective behavioral intervention plan. This multidimensional assessment of the student by their teacher, special education consultant, school counselor, and the student’s parents in an imperative part of any intervention planning approach to management of BD students. Lane, Mahdavi, and Borthwick-Duffy (2003) found Pre-Referral assessment highly valuable in facilitating effective BD intervention planning.

Three major behavior modification programs were described: Positive Behavior Support, Cognitive Behavior Management, and Comprehensive Classroom-Based Education. Based upon functional assessment of BD behavior, information is gathered in designing an effective plan to replace negative disruptive behavior with positive behavior skills. The aim of each program is to help BD students to replace disruptive behavior patterns with positive social skills conducive to learning in the school setting (Fox, Conroy, and Heckaman, 1998).

In reviewing Positive Behavior Support and Cognitive Behavior Management programs, each was found to operate on the principle that by changing the way a child interpreted others, the BD student’s reactive behavior will also change. Helping students learn through Cognitive Behavior Management to react with positive responses to situations that would normally elicit reactive or destructive behavior increases positive alternatives that in turn reinforce appropriate thinking and behavior (Ruef, Higgins & Glaeser, 1998).

A number of interrelated behavior modification methods are carried out through Comprehensive Classroom-Based Education that combines a behavior treatment program with an educational component. Reitz (1994) determined it to be an effective intervention method for BD students. When behavior modification principles are applied by the teacher through the methods of Positive Behavior Support, Cognitive Behavior Management, and Comprehensive Classroom-Based Education, they were proven to be very effective with nearly all BD students (Fox, Conroy & Heckaman, 1998; Gunter & Jack, 1994; Reitz, 1994; Simpson, 1998; Swaggart, 1998).

The goal of teacher supportive intervention is to increase the BD student’s self-concept as a capable learner, build the student’s confidence, and develop a more positive attitude toward school. Teachers may achieve these goals through using Teaching Scripts, Setting Events, and Cognitive Behavior Education (Gunter & Reed, 1997; Prater, 1994; Searcy, 1996).

Teaching Scripts are brief, short-cut pointers, analogies, prompting, and encouragement to help the student problem solve. Setting Events are the contextual factors of the physical setting and social composition of the classroom that have an ongoing effect on interactions between students, teachers, and classmates. Use of Setting Events as a preventive measure for BD students has proved to be beneficial in lowering the incidence of BD behavior in the classroom. Many BD children suffer increased familial dysfunction, neglect, and abuse. Cognitive
Behavior Education is a cognitive-based intervention strategy teachers use with young children to teach improved interpersonal safety and coping skills, increase self-esteem, and support academic goals. Such intervention can offset the tendency of BD students to internalize emotional pain and frustration that normally results in explosive temper tantrums and similar disruptive behavior in class. Application of the Cognitive Behavior Education method is similar to cognitive behavior modification with the student being trained to apply self-management skills (Webb, 1992).

Group work methods of behavioral re-education facilitated through small student group meetings support an orderly and well-managed learning environment and have been successful in building and maintaining positive support between students in the classroom (Cohen, 1994). These cooperative learning groups can be specifically adapted to help BD students improve their behavior (Carpenter & McKee-Higgins, 1996). Peer Confrontation is an effective group work behavioral re-education method used to initiate positive behavior changes among classmates (Cohen, 1994). Both methods have proven useful in facilitating the growth of positive behavior in BD student group members.

Use of I-Messages has been shown to be useful in providing students with the ability to act on behalf of themselves in a positive manner when dealing with personal anger, restricting the sense of blaming or threatening, and helping to resolve disagreement and conflict Phillips-Hershey and Kanagy (1996). Brief Individual Therapy may also be useful as an additional support to individual students who lack confidence that they will be able to eliminate BD behavior using only the previously mentioned methods of intervention alone.

Research has shown inexperienced and veteran teachers continue to report difficulty in dealing with BD students and its detriment to maintaining an effective teaching environment (Gunter & Jack, 1994; Gunter & Reed, 1996). Researchers have evaluated the effectiveness of various procedures aimed at decreasing the inappropriate behavior of BD students in educational settings including the effectiveness of teacher-managed guided group intervention programs for use among teaching professionals (Morgan & Striefel, 1988). Various methods and effective techniques to deal with BD student behavior are presently available through an array of programs in our public schools. However, specific training in methods designed to manage the BD student has often resulted in teachers’ incorrect application of these methods leading to failed intervention (Long & Morse 1996).

It is imperative that teachers receive the training and methods necessary to effectively respond to the needs of BD students. Due to a variety of political, economic, and social ills in our nation, many BD children enter school with a sense of anger, hostility, and alienation from the world. It is no wonder they have little faith that education can really make a difference in their lives. This group of students offers us our greatest educational challenge. Teachers must continuously work to reach through research and development new and more effective methods to teach BD children.

Shriner (1994) suggested that the most effective way to meet the challenges confronting the BD student could be using the local community school-based system to design and implement outreach programs providing services addressing the special educational and behavior service needs of families with BD students. It is especially important to provide such services to inner city families and those of low income that are typically provided minimal or no services for BD students through local state and county service systems.

Recommendations for Practice

Educational research studies reviewed for this paper demonstrate school-wide application of standardized methods in behavior management of BD children are strongly associated with an affective reduction of BD and non-BD student discipline problems (Colvin & Fernandez, 2000, George, Harrower, & Knoester, 2003). Yet research confirms teachers continue to report difficulty in dealing with BD student behavior (Gunter & Jack, 1994; Gunter & Reed, 1996). Many teachers report having received little or no training during undergraduate and graduate school specific to effective classroom management and methods of working with BD students. This correlates with classroom management problems noted by Morris-Rothschild and Brassard (2006). Lacking this knowledge, teachers of younger children with early BD symptoms often interpret their behavior as situational only, under the student’s control, and not a cause for concern until a BD pattern is established in later grades. This delay in detection often results in seriously reducing the potential for effective intervention.

Methods of effective classroom management with BD students must become a significant part of undergraduate and graduate education programs and empower teachers with a strong working knowledge and skills necessary to select and implement effective methods of behavior management with BD students. It is equally important for school districts to require that continuing education programs provide updated
training in BD student behavior management methods and that this becomes a regular requirement of teacher re-certification.

Holistic information pertaining to the child’s ecology is crucial for the teacher to receive in order to responsibly plan, select, and implement the “nuts and bolts” of behavior management methods for the particular BD child. School districts that fail to increase functional/pre-referral assessment services must, therefore, at minimum equip teachers with continuing education training regarding the BD child in terms of his/her family dynamics, the workings of interfamily systems and relationships, and the family’s influence in the life of the child to enable the teacher to enter into meaningful consultation with the school psychologist or counselor and in coordinating school and community resources specific to the best educational and mental health interests of the child.

In elementary schools, teachers also function in the role of a parent-substitute figure. In this role the teacher must remain alert and respond to the relatively fragile emotional and psychological needs and fears BD children commonly display in addition to BD signs, which go beyond that learned in standard child development courses. The teacher must also function as effective counselor, listener and advisor to BD students, skillfully working through the interpersonal teacher-student relationship. Thus, there is an equal need for the teacher to have received specific training in effectively responding to and supporting the emotional, developmental, and psychological needs of the individual BD student.

In summary, the uses of behavior modification methods discussed within the body of this paper are applicable with most children, especially in elementary school settings. These methods have an impressive research history as effective change agents. For their part BD children also respond favorably in group behavior management programs where cooperative learning, peer tutoring groups, and peer-mediated behavioral intervention are available. Quinn & Jannasch-Penell (1995) found in classrooms heavily favoring group work that BD students more often experienced peer acceptance and a sense of belonging, and that their increasingly positive behavior tended to follow along with the BD student’s increasing academic success. Most noticeable was that BD students became significantly less inclined to seek out BD peers for acceptance and a sense of power. It may be surmised that such group oriented programs of positive support provide the BD student with a sense of security, predictability, trust, and acceptance for who they are as a young person, something which has often been missing from their lives; the loss of which has served to feed development of the BD profile.

It goes without saying that public school systems need to incorporate methods of BD behavior management cited in this paper while continuing to research other similar avenues of reaching our BD students. The public must also realize the ultimate cost of failing to fund behavior management programs for BD students, including the funding of teacher development programs specific to classroom management of BD students. Given the rising tide of BD students now and in the coming years, failure to meet this challenge will inevitably lead to more serious circumstances impinging upon our public school systems, as well as our homes and communities far into the foreseeable future.

References


Collaboration Between Special Educators and Parents: Working Toward a Positive Collaborative Relationship that Benefits the Student and All Involved

by Mikki Fredrickson

Collaboration between special education educators and parents of students with special needs is a tool for defining and supporting the goals and needs of both the students with special needs and the family. Common barriers to a successful collaborative relationship are differences between educators and parents in the areas of language, socioeconomic class, and culture. Collaboration and effective communication training for educators and parents will facilitate the ability for both to view each other as equal partners, learn to work together to develop the student’s Individual Education Plan (IEP), as well as develop strategies that will facilitate optimal academic success for the student.

Introduction

Collaboration between special education teachers and parents has been a key element and goal in implementing national goals, federal legislation, and local reform practices for education (O’Shea & O’Shea, 1997). In a collaborative relationship, educators and parents work together in developing the student’s Individualized Education Plan (IEP) as well as developing strategies that will improve the student’s opportunity for optimal academic achievement in school (Scratchfield, 1988) and facilitate a balanced link between home and school. This paper will give a historical view of collaboration as well as present mandates in education that focus on collaboration. It will also discuss the positive effects of collaboration, variables and barriers that can inhibit collaboration, and describe strategies for forming a collaborative relationship.

Through a collaborative relationship, the school, the parents, and the student all benefit. Parents are often the primary source for identifying the specific needs of the student and can be a valuable source of information for the school (Butera, 2005), and through their involvement, the parents gain a sense of empowerment and can become skilled at advocating for their child (Cheney & Osher, 1997). In addition, when parents and schools collaborate, the child shows improved academic and social behavior, higher attendance rates, and lower suspension rates (Dettmer, Dyck, and Thurston, 1993).

Regardless of the positive outcomes for the family, there are barriers and variables that are found to inhibit a positive relationship between parents and educators. Differences in socioeconomic status and culture between parents and educators are noted as key elements that can inhibit the school’s ability to acknowledge the parents as equal partners (Butera, 2005; Degangi & Wietlisback, 1994). From the parents’ perspective, the schools’ attitudes, perceptions and receptiveness to them often appears to de-value the parents’ goals for their child’s education (Green, 1996).

Obviously, the implications for both parents and educators suggests training in facilitating and participating in the collaborative relationship. Laws may mandate collaboration, but as Welch (1998) reports, true collaboration comes from within and participants must choose to collaborate if the relationship is to be successful. Greene (1999) adds that the relationship is ideally based on trust and respect between parents and educators, and over time, the participants will view each other as qualified in decision making regarding the student.

Limitations to this paper are most relevant in the area of models for a collaborative relationship. As Risko and Bromley (2001) emphasize, although collaboration between school and parents is proven to be successful, there exists few practical examples by which to follow. Lack of appropriate collaborative models appears to be the ultimate barrier to collaboration because although collaboration may be mandated through legislation, educators and families often do not have the skills or training to collaborate effectively. Collaboration between educators and families is a relatively new concept and both educators and parents are accustomed to their traditional roles.

For the purpose of this paper, educators refer to all administrators, teachers, and related service providers who provide school services to the student. Parents are those with legal custody/guardianship or other adults who provide primary care of the student. Collaboration and the collaborative relationship refer to the relationship between schools/educators and the parents of the student. Within the collaborative relationship, the educators and parents are regarded as equal partners in determining goals for the student.
as well as designing the education plan for the student.

**Literature Review**

**Historical View of Collaboration**

Historically, according to Sussell, Carr, and Hartman (1996), educators in public education were not known to collaborate with parents of children with disabilities about the child’s educational plan or other key issues that made up the school day. Often, parents were viewed as the source of the child’s problems and it was believed that the child would be better off separated from the parents and put in a residential institution. In the 1970’s, the trend switched and it was believed that children with disabilities were better off with the family. But in public schools, educators still focused on their own goals for the child rather than identifying and implementing the parents’ goals for the child. Parents’ presence in the schools was regarded as beneficial to the child, but parents’ participation in schools was limited to helping the child accomplish the goals set by the educator (Sussell et al., 1996).

Prior to 1954, the federal government ceded control of public education to state and local control and provided little funding to local school districts. This began to change with the Supreme Court ruling in the *Brown v. Board of Education of Topeka* case in 1954. The court ruled that the separate but equal doctrine of segregation was a violation of the 14th Amendment of the Constitution and schools were ordered to desegregate (Tutwiler, 2005). This opened the door to the federal government’s influence and control in public education and the government began to address specific issues in education that were related to the interest of national welfare. As well as desegregation, the government saw the educational experiences of the culturally and economically disadvantaged children as a target issue and legislation and funding were used to ensure the government’s intentions in education (Tutwiler, 2005).

The mid and late 1950s were seen as a period of educational reform as equal access to education and funding became a legal right for all children, but Hewit (1997) states that the granting of these rights was a fallacy. Hewit (1997) makes the distinction between access and opportunity and suggests that although minority children were given the opportunity to attend integrated schools, it does not imply they were provided access to a meaningful education. Tutwiler (2005) addresses the fact that the media and political arena saw parental involvement as a catalyst for improving the education of all children, but African American children were seen primarily as the “culturally and economically disadvantaged children.” The parents of these children were believed to be the cause of the family’s economic disadvantages and the practice of ‘parental involvement’ in education did not include them.

By the mid 1960s, African Americans were discouraged by the lack of positive action that was missing from the *Brown v. Board of Education* ruling and they were reluctant to concede to an educational system that blamed their own culture and lifestyle as the reason for their children’s lack of academic achievement (Tutwiler, 2005). According to Tutwiler (2005), African Americans blamed the educational system for their children’s academic failure and through political action, demanded quality education for their children. Spring (2005) also states that African Americans’ struggle and prolonged efforts were the force that actually caused the schools to desegregate. The government’s control of local schools and legislation of the 1970s was the effect of the African Americans’ struggle and persistence. Tutwiler (2005) agrees and states that legislation in the 1970s most probably reflected these demands and also the desires of these parents to be involved in their children’s education.

**Laws that are Relevant to Collaboration**

In 1965, The Elementary and Secondary Education Act (ESEA) was passed and although it made no mention of parental involvement in public schools, it set the stage for federal intervention. Through a series of eight revisions and extensions, the Education Amendments Act of 1978 was passed. This act referred directly to parent participation in programs designed for educationally deprived children. To support this decision, federal funds that were earmarked for this purpose were only distributed to schools that met two criteria. Schools had to actively employ programs for educationally deprived children as well as allow parents to participate in developing and carrying out the goals of the program (Tutwiler, 2005). Although the Education Amendments Act targeted educationally deprived children, Title II of this Act addressed the needs of all children by calling for parents, educators, and school administrators to develop a comprehensive basic skills program designed to meet the needs of all students.

Also relevant to parent involvement was the Education for All Handicapped Children Act of 1975. As the earlier legislation did not speak directly to parents of handicapped children, this one spoke specifically to those parents and allowed for, and encouraged, parents to participate in forming and implementing their child’s education plan (Scritchfield, 1988). Specifically, this act required an
individual educational plan (IEP) be developed for each child with disabilities with the joint input of both the educators and the child’s parents. This gave parents an active role in deciding the type of services the child would receive (Spring, 2005).

Most recently, the Individuals With Disabilities Education Act of 1997 (IDEA) supports collaboration between parents and special educators with the goal of providing a free and appropriate education to all students, specifically those with special needs (Welch, 1998). Welch (1998) says that although IDEA includes “procedural safeguards to ensure the active involvement of parents” (p. 124), collaboration is a term not directly stated in IDEA. However, Welch (1998) argues that collaboration is inherent throughout the statute and that special educators will use collaboration as a tool to comply with the mandates of IDEA. He also emphasized that collaboration is not something that can be mandated because true collaboration comes from within. Collaboration is something that those in the collaborative relationship must choose to do if the collaborative relationship is to be successful.

Why is Collaboration Desirable?

There are several positive effects of collaboration that make it desirable for both families and educators. The trend towards collaboration is supported by evidence that the child will have a greater opportunity for optimal development if there is parental involvement (Scritchfield, 1988). According to Butera (2005), collaboration is a way to provide comprehensive benefits that support the goals and the needs of both the child with special needs and the family. Butera also reports that collaboration stems from the acknowledgment that often, the resources to fulfill a child’s educational needs can be limited, yet parents can be seen as the primary source for identifying the specific needs of the child. With this information, the schools can narrow down the best resources for the child.

Louise Kaczmarek’s (1996) qualitative study of collaboration and communication supports the need for collaboration. The study found that when children with special needs were receiving dual services, many children had difficulty making the transition from the environment and expectations of one service provider to another. Also found was that the child benefits if all involved, including parents, communicate and work collaboratively to determine what specific services are needed and to be provided by whom, as to not have an overlapping of services. Kaczmarek (1996) described communication as a prerequisite to collaboration. Also stressed to parents was the need for a communication network across services and their consent for such communication to occur.

Similar to Kaczmarek’s (1996) classroom benefits of collaboration, O’Shea and O’Shea (1997) discuss collaboration as the key to implementing national goals, federal legislation, and local reform practices for education. The authors emphasize that for students with special needs, achieving expected progress and goals will take a collaborative relationship between school and family and require those involved to share decision making and, “take ownership, and build a unified service delivery system” (p. 460). O’Shea and O’Shea (1997) state that there is an awareness among educators, legislators, parents, and others that collaboration is necessary in ensuring more positive student outcomes in education.

Other literature supports collaboration. Dettmer, Dyck, and Thurston (1993) report that students whose families collaborate with school show improved academic and social behavior, higher attendance rate, and lower suspension rates. Also notable are improved test scores, higher completion rates for homework, and students having a more positive attitude towards their schooling. According to Dettmer, Dyck, and Thurston (1993), it’s a win-win situation; students, families, and teachers all benefit. Risko and Bromley (2001) also deem collaboration as beneficial in that it moves from a deficit model to one that focuses on and is based on the student’s strengths, values, and belief system.

Cheney and Osher (1997) discuss the benefits as well but in regards to the parents and the opportunity they have through a collaborative relationship with schools to gain a sense of empowerment by their own involvement. Through the relationship, the family has mutual authority with the educators in deciding goals for their child, and they are inclined to learn new skills for facilitating their child’s success. With this, families will learn to communicate more effectively with teachers, they are empowered to develop more meaningful goals for themselves and their children, and they become skilled at advocating for their children (Cheney & Osher, 1997).

Variables and Barriers that Affect Collaboration

Many variables exist that impact the ability of schools and families to collaborate effectively. Butera’s (2005) study sought to understand how contextual variables, such as culture and socioeconomic status, affect collaboration between educators, parents of children with special needs, and the child with special needs. The research presented, based on one particular family with a special needs child, found that sociocultural differences between the educators and the family with the special needs...
child impacted the educators’ ability to understand the belief system and values of the family. This difference created some conflict in collaborative efforts and strained the relationship between educators and the child’s mother. Even though some school staff had indicated that they liked the family, they still tended to ‘look down’ on them. In fact, the principal of the school stated to a researcher, in regards to the family, “These hill people are good folk, salt of the earth. But they’re ignorant” (Butera, 2005, p. 114). The study also found that socio-economic status (SES) differences between educators and families played a significant role in preventing a positive collaborative relationship. Although many of the educators were raised in the same town as the focus family, their own education and income provided them a higher status in the community and they appeared to distance themselves from the focus family and other families with similar SES (Butera, 2005).

Schnieders and Tafoya (1998) also found cultural differences between educators and families to be a significant barrier to effective collaboration. Before collaborative meetings, Schnieders and Tafoya (1998) suggest that attendants should be informed of the family’s culture, and any strategies that facilitate parental involvement should be discussed and employed to empower the family as much as possible. Often, service providers are from mainstream cultures and communication barriers based on cultural differences can leave the family feeling resentment and anger if they are unable to communicate effectively.

Likewise, DeGangi and Wietlisback’s (1994) study found that socioeconomic status and cultural differences between school and family challenged the collaborative relationship. Due to the difference of cultural values, priorities of services were different between them. The conflict that this created was exacerbated by the SES differences. Lower SES was correlated to less education and the study found that parents in this range also had different goals for their children and they tended to defer to the school professionals rather than engaging as an equal partner in the relationship (DeGangi & Wietlisback, 1994). The study also found that families of a lower SES tended to be mistrusting of school professionals and were reluctant to share family information with them. Other variables within SES and cultural differences that attributed to differences between educators and families were childrearing practices, family structure and roles, daily routines, knowledge about child’s disability and its causation, and ways of communicating (DeGangi & Wietlisback, 1994).

Cook and Downing (2005) report that there are several factors that get in the way of educators’ ability to collaborate effectively and to the desired amount. Lack of appropriate communication skills and the ability to work together effectively, as well as time constraints and schedules, are significant barriers. Moore and Littlejohn’s (1992) list of barriers that inhibit positive collaborative relationships include the inability of educators to give up their traditional role as the “experts” and decision makers, educators focusing on the negative rather than the positive aspects of the child, and often times distance. They describe distance as being either geographical, the difficulty in arranging schedules, environmental barriers such as furniture in the immediate setting, as well as using jargon and technical terms that the parents are unfamiliar with. Pinkus (2005) also found professionals’ use of jargon during meetings to inhibit parents’ ability to communicate as equal partners.

Susan Pinkus (2005) identifies parents’ perspectives of collaboration based on her research and qualitative study. The study found that parents, who obtained service providers outside of the school, felt the school saw them as undermining service efforts within the school. At meetings, parents generally felt as though the school had already made decisions regarding the child’s educational plan and services. Also, although the school conveyed the importance of the parent’s participation, parents felt they were invited to the meeting simply to give consent and sign the individual education plan (IEP). Several parents also stated that the written information given to them was overwhelming and difficult to interpret since they were not specialists in the field.

While some of the previous literature cited points to more general barriers of difference in cultures and SES of educators and families, Gary Green (1996), from the Department of Special Education at California State University, suggests that families from culturally and linguistically diverse backgrounds are less informed than their counterparts who are considered mainstream American. He emphasizes that school personnel’s attitudes, perceptions and receptiveness to culturally linguistic diverse families are affected and that the school personnel do not value the parent’s goals for the child’s education. These families tend to feel excluded from the educational process of their children. McCaleb (1997) also points out that minority families do not typically share equal status with those of the dominant culture and that the dominant culture tends to de-value the cultural practices and values of the minority family. This causes the child and family to question their own knowledge and cultural ways. Furthermore, when the parents feel ignorant and inadequate, they are unable
to participate effectively in a collaborative relationship.

Effective Strategies for Building Collaborative Relationships between School and Family

There are many strategies for building effective collaborative relationships between school and family. Historically, parents were not included in planning their child’s educational program and it may not feel like a natural process to them. Schnieders and Tafoya (1998) describe the confusion that parents often feel when working with schools and compares it to the madness of Alice and Wonderland when Alice attends the Mad Hatter’s tea party and is frustrated by the March Hares confusing conversation. Six areas are outlined for parental support that would foster a healthier collaborative relationship: enhancing a sense of community, mobilizing resources and supports, protecting family integrity, strengthening family functioning, shared responsibility and collaboration, and proactive human service practices (Schnieders & Tafoya, 1998). The authors also suggest training in ways of collaboration for both parents and educators.

Marci Greene (1999) also supports collaboration training for school professionals and parents, as well as building trust and mutual respect between the two. Her opinions are based on her personal experiences of being a mother of a child with special needs. Her experiences with her child’s education include her frustrations of not knowing how to collaborate with the schools and not having received guidance about her collaborative role from the school. Greene (1999) believes that training educators how to collaborate as well as how to engage families in the collaborative relationship is essential. She also supports collaboration training for parents and says that ultimately, through their collaboration experiences, they become skilled advocates for their children. According to Greene (1999), trust and mutual respect are also needed for effective collaboration. Through shared experiences over time, these ties can be formed and both educators and parents will view each other with mutual respect and as qualified participants. Greene (1999) states the need for teachers to be willing to accept parents as knowledgeable, particularly about their own child’s disability, and capable of identifying appropriate goals and expectations for the child.

Smith and Leonard (2005) emphasize the importance of school administrators playing an active role in creating an environment that fosters collaboration between staff and families as well as the educator’s need to facilitate collaborative relationships. Similarly, Hewit and Whittier (1997) cite the educational administrators as responsible for setting the tone for collaboration. They emphasize that if the school personnel are expected to collaborate, the administrators are responsible for specifying the mission of the school district and facilitating congruence among all in collaborative efforts.

Implementing effective strategies can help to facilitate collaboration. Simpson (1996) discusses the importance of both parties being effective listeners. He summarizes suggestions for facilitating the listening process between collaborators as allowing the opportunity for another person to talk, creating an environment that allows the person to feel comfortable in speaking his/her feelings and opinions, and showing an interest in what the person has to say by asking pertinent questions. Also important is being empathetic, allowing sufficient time in the meeting for the person to discuss their issues of importance, and avoiding arguments or becoming angry (Simpson, 1996).

Martin (2005) also advocates listening skills as an effective strategy for collaboration and lists several phrases that show support toward the feelings of others when collaborating. Martin states, “The more fully we can accept someone just to be where they are, the more easily they can take their next steps forward” (p. 127). He also lists some key phrases that encourage discussion and support the other’s feelings such as, “Say some more about that”, “What was that like for you”, “How are you doing with that”, and “How would you have preferred that I handle it” (p. 127). Educators should be sincere in the relationship and use effective listening skills to understand the parent’s point of view.

Pogoloff (2004) suggests providing parents with multiple forms of communication when collaborating about their child. Simply asking which form of communication works best (phone, face-to-face, writing, email) can initiate a response and incentive to collaborate, and provides the parents several options for communicating important information regarding their child. Macklem, Kruger, and Struzziero (2001) emphasize the benefits of using email as a form of collaborative communication. Email seems to be a solution to time constraints, transportation difficulties of families, and hectic schedules, particularly when parents are collaborating with several service providers. Email may provide the opportunity for educators and families to communicate more frequently, though caution should be taken in regards to the ethical issues that may arise from communicating by email about sensitive and private information concerning the student with special needs (Macklem et al., 2001). The authors stress that school personnel should check with their district to ensure that their software is secure and as a
Models that Facilitate Collaboration

Bauer and Shea (2003) suggest an integrated model for engaging parents in a collaborative relationship. The model is outcome based and is derived from the parents’ assessment of their needs. It is also family-centered in that the goal is for optimal development for the child as well as a higher quality of life for the family. To achieve this, the model uses activities that focus on appropriate and positive child-rearing practices as well as providing support that emphasizes the value of the family’s uniqueness. The activities include those that communicate information from the school to the family as well as those that share information, such as a conference. Collaborative activities are also used, such as the parent participating in the school by tutoring, volunteering, or helping the teacher prepare materials to be used in the classroom. Bauer and Shea also recommend parent education activities that increase the parents’ knowledge and skills as well as help parents become skilled in leadership, advocacy, and policy efforts.

Mentor Parent Program in Pennsylvania is described by Moore and Littlejohn (1992) as a federally funded program that introduces parents who are experienced in the special education process to parents who are not. It provides an opportunity for those inexperienced parents to learn about parental rights in regards to special education laws and educational programs. The program also provides resources that may benefit the parents and help them to be successful collaborators in their child’s educational program. These include transportation assistance to Individual Educational Plan meetings, an 800 number for information and referrals, a resource directory, and a list of available educational programs.

Lee, Palmer, Turnbull, and Wehmeyer (2006) present the Self-Determined Learning Model of Support (SDLMS) that is a model for parents and educators to follow to increase self-determination in the child with special needs. Students with disabilities benefit greatly from learning self-determination because it enables them to achieve positive outcomes as adults. Through self-determination, students will learn to self-advocate in positive, appropriate ways that allow them to gain some level of control over their lives. It is through learning to problem-solve that children will gain self-determination. For students in school, collaboration is key to this model’s success as the teacher and parents rely on the collaborative relationship to support congruence between what is taught at school and within the home (Lee et al., 2006).

This literature review has identified laws that promote collaboration such as the Education Amendments of 1978, the Education for All Handicapped Children Act of 1975, and IDEA (1997). Positive outcomes of a collaborative relationship presented include a more positive educational outcome for the student and a higher quality of life for the family and the student with special needs. Strategies presented for obtaining that relationship include collaboration training for both educators and parents, and educators’ willingness to put traditional roles aside and view families as equal partners in designing educational programs for the child. This review also identifies variables and barriers that inhibit collaboration such as differences in culture, SES, and language, as well as traditional roles of schools and families. The literature has clearly shown that collaborative relationships between educators and families, though often difficult to implement satisfactorily to both, facilitates the student’s success in education.

Conclusion

Collaboration between schools and families is a process that can benefit the student in special education. Through the collaborative relationship, the student has an increased opportunity for academic achievement. Although historically educators opposed collaboration, they are now aware of the benefits to the student and therefore they should make efforts toward facilitating a collaborative relationship with the family. Unfortunately, there are few models of collaboration for educators and parents to use, but with proper training, the relationship is possible and should be considered a priority for facilitating the success of the student.

Laws that address students with disabilities do not specifically require collaboration, although it is recognized as a tool to be used to comply with educational mandates. The Education for All Handicapped Children Act of 1975 required that an Individual Education Plan (IEP) be developed for each child with disabilities and gave parents a participative role in developing their own student’s IEP. The Individuals With Disabilities Education Act of 1997 (IDEA) also extended federal endorsement of parent and educator collaboration as a tool for student success.

The research shows that there are barriers that undermine attempts at collaboration. Differences in socioeconomic status, culture, and language between educators and families may challenge the ability of educators to see the parents as equal and qualified.
partners in developing appropriate goals and expectations for the student. The parents, on the other hand, may see these differences as unattractive qualities of righteousness and believed superiority in the educators and believe them to be undermining and disregarding their views.

Though the barriers are significant and can prevent a positive and productive relationship, the benefits to the student of an appropriate collaborative relationship are tremendous and collaboration should be considered a priority. Research confirms that when collaboration is used, the student’s needs are more accurately determined, goals and expectations can be developed to meet academic and social gains, and the student has a higher likelihood of optimal development. Therefore, regardless of differences between educators and parents, both should put the needs of the student foremost and work together in designing an appropriate IEP that focuses on the student’s strengths, rather than weaknesses.

Effective strategies for building a collaborative relationship can benefit both educators and parents. Training for both in successful collaborative relationships helps to teach effective communication skills and build trust and mutual respect that ultimately improves the relationship and its effectiveness to work together. Models that facilitate collaboration are also available and can provide techniques and guidelines for both to follow, as well as support and resources for the parents to access.

Obviously, the implications for both parents and educators suggests training in facilitating and participating in the collaborative relationship. Laws may mandate collaboration, but as Welch (1998) reports, true collaboration comes from within and participants must choose to collaborate if the relationship is to be successful. Greene (1999) adds that the relationship is ideally based on trust and respect between the two, and over time, the participants will view each other as qualified in decision making regarding the student.

In the literature that was reviewed, there were no recommendations for “community building” activities that involve the educators, parents, and students, and that focus on building mutual respect and trust. Future research might examine different activities that bring all participants together on an “equal playing field” and allow time for getting to know each other in a non-threatening way and in a manner that will facilitate a genuine regard for each other in a collaborative relationship. These types of community building activities may help to bridge the historical, and current gap between families and educators.

### Recommendations for Practice

Schools are responsible for initiating and facilitating a collaborative relationship with parents of students with special needs. It is the schools responsibility to encourage the relationship and communicate with parents how helpful and important their participation is. It may be difficult for some educators to discard traditional views that “the school knows best” and welcome parents’ input and knowledge, but it is suggested when seeking optimal educational, social, and physical goals for the student.

There are many aspects of families to consider when facilitating a collaborative relationship. Educators should prepare for any differences between family and self in regards to culture, language, and socioeconomic class, as those are the three most common factors that prevent effective collaborative relationships. As educators get to know parents of the students in special education and understand their way of life and their needs, they will be able to be more empathetic toward the student and his/her parents, understand their needs, and work effectively to implement goals and objectives that are sensitive to the student and family, and address their needs.

### Practices to Promote

- Let parents know that they possess important and valuable information regarding their student and the student’s special needs and that their input and knowledge is welcomed and valued and will be used when writing and implementing goals and objectives for the student (Greene, 1999).
- If parents’ primary language is different from the dominant culture or they struggle with the language of the dominant culture, arrange for a translator to be present at all meetings the parents attend.
- During meetings that parents are present, avoid using professional jargon that parents are unfamiliar with (Pinkus, 2005). Using language that the general public is familiar with will help the parents to feel included and valued in the conversation. During conversations and private meetings with parents, work to educate them on some of the basic professional terms that others may use in meetings and educate them on the terms that are specific to the student’s disability.
- Educators should model effective listening skills and paraphrase back to parents to
ensure correct understanding by the educators as well as the parents (Simpson, 1996).

- Schedule sufficient time for teacher parent meetings to ensure parents the opportunity to discuss all issues that are important to them regarding their student, as well as providing time for a meaningful and productive conversation to occur around those issues.
- Educators should consider the environment where meetings take place and try to arrange the environment to be considerate of parents’ culture, language, and socio-economic class.
- Educators should attempt to learn about the student’s home culture and language in order to gain some insight into the student and family’s perspectives on the school, classroom, and teaching methods of the teacher.
- Educators and parents should receive training in communication and collaboration skills so both parties will be effective in the collaborative relationship (Schnieders & Tafoya, 1998).

Cautions:

- Educators should not attend meetings with only their own agenda in mind. Parents feel excluded from the meeting and feel their ideas/issues are devalued if they are not included.
- Do not assume collaboration will occur just by way of the parent teacher meeting. It is a purposeful act and requires genuine attempts by both parties.
- Do not restrict collaboration to the teacher parent relationship only. Special needs students typically receive a range of services within the school and it is important to the students’ success for all providers to collaborate together as well as with the parents (Kaczmarek, 1996).

Collaboration is a purposeful relationship and as educators become more familiar with the unique and diverse needs of families, they will become more effective partners in the relationship. The student is always the main concern and educators will gain a much clearer picture of the student and his/her needs by facilitating the collaborative relationship with the parents. Collaboration should also not be taken for granted. It takes communication, hard work, and flexibility to form and maintain relationships with families of students with special needs. A collaborative relationship takes dedication by all participants and all involved should remember that it is the student’s success that is at the heart of the collaborative relationship.

References


Indigenous Knowledge in the Modern Science Curriculum Using a Critical Pedagogy of Place Approach

by Eric V. Hargrave

During the present environmental crisis, sustainability education must be at the heart of the modern science curriculum. As a foundation for such a curriculum, a critical pedagogy of place combines the methods and goals of critical pedagogy and place-based education in order to interrogate the unsustainable and oppressive practices of Western society. In particular, non-Indigenous students can study Western Modern Science (WMS) and Indigenous Knowledge (IK) with respect to the assumptions embedded within these two worldviews. A critical pedagogy of place demonstrates how WMS abets the domination of both peoples and places and, in contrast, how IK worldviews foster a reciprocal relationship with the Earth. Transformation to a global, sustainable society requires deep examinations of the widely-accepted WMS worldview as well as our relations with the Earth and with each other.

Introduction

“I believe that the horrifying deterioration in the ethical conduct of people today stems from the mechanization and dehumanization of our lives - the disastrous by-product of the scientific and technical mentality. Nostra culpa.” (Albert Einstein)

As our global society moves into the twenty-first century, we face a problem un-encountered thus far in human history; environmental destruction, degradation, and disruption on a planetary scale. Worldwide problems, such as global warming, ozone depletion, and loss of biodiversity, now coincide with local problems such as groundwater pollution, collapsing fisheries, and desertification (Bowers, 1993; Cajete, 2000; Diamond, 2005). On an international scale, the World Commission on Environment and Development (1987) first emphasized the need for environmental sustainability in the report *Our Common Future*.

In an environmental context, the term *sustainability* has several different meanings, but most definitions include the obligation to provide for the material needs of future generations (Bowers, 1993; Nagpal, 1995; WCED, 1987). In addition, international reports like *Our Common Future* (WCED, 1987) and the *Convention on Biological Diversity* from the Rio Earth Summit (UNCED, 1992) have acknowledged the important knowledge that Indigenous peoples have contributed to sustainability and, in fact, called for Western societies to learn from them. Indeed, the Rio Earth Summit (UNCED, 1992) stipulated that sustainability education be an interdisciplinary topic in all modern curricula. These international conferences point to the need for inclusion of Indigenous Knowledge (IK) in sustainability education in Western societies. Likewise, the American Academy for the Advancement of Science (AAAS)—the largest general science organization in the world—formally recognized the potential contributions of IK to science in 1975 (Lambert, 2003) and included a session on IK and sustainability, moderated by Indigenous scientists and scholars, at its annual meeting in 2003 (Lambert, 2003; Simonelli, 2003).

However, the inclusion of IK within modern Western curricula poses many problems. When leaders and activists from the developing world were surveyed for definitions of sustainability, they invariably included issues of Western dominance and colonialism and, furthermore, cultural protection and preservation (Nagpal, 1995). They especially acknowledged the contributions of IK to sustainability but called for maintaining the Indigenous peoples along with their knowledge (Nagpal, 1995). Therefore, any curriculum involving IK must also contend with issues of culture and power. In particular, sustainability education, which typically takes its place as a part of the modern science curriculum, must incorporate a critical examination of social oppression if it attempts to bring IK together with Western Modern Science (WMS).

A critical pedagogy of place offers a critical approach to sustainability education that embraces both IK and WMS. As Gruenewald (2003) defined it, a critical pedagogy of place brings together critical pedagogy (Freire, 2000; Giroux, 1988; McLaren, 2003), place-based education (G. A. Smith, 2002; Sobel, 2006; Woodhouse & Knapp, 2000), and an interrogation of the Western worldview vis-à-vis the environment (Bowers, 1993, 1995, 2001). In essence, a critical pedagogy of place gives students the framework for examining their social and environmental contexts. Moreover, a critical pedagogy of place provides the dual goals of decolonization and reinhabitation (Gruenewald, 2003). Decolonization is the process of transformation that recognizes and removes the imposition of the Western culture upon oppressed
cultures (including Indigenous peoples), and reinhabitation is the process of conservation that recognizes and reclaims the natural environments degraded and disrupted by Western culture.

First, a critical pedagogy of place compels an analysis of the definition of IK in a modern science curriculum that includes IK and WMS. IK is commonly referred to as Traditional Ecological Knowledge (TEK) by Western scientists and in the scientific and educational literature (Berkes, Colding, & Folke, 2000; Nadasdy, 1999; Snively & Corsiglia, 2001, 2005; Turner, Ignace, & Ignace, 2000). Other scholars (usually Indigenous) have used the term IK purposefully to oppose the Western ethnocentrism inherent in the term TEK (Battiste, 2002; McGregor, 2004; Van Damme & Neluvhalani, 2004). For this paper, Indigenous refers to pre-colonial peoples around the world and Knowledge refers to a complete, complex system of culture specific to a particular people and place. In addition to analyzing the definition of IK, a critical pedagogy of place demands an examination of the relationship between IK and WMS in a modern science curriculum: should IK be excluded completely from WMS, included as a part of WMS, or recognized as an equally valid yet separate sphere of knowledge (Carter, 2004, 2005; Cobern & Loving, 2001; Snively & Corsiglia, 2001, 2005; Svennbeck, 2001)? These examinations are a part of the decolonization process that reveals power and dominance in the relations between IK and WMS.

A critical pedagogy of place also calls for the process of reinhabitation. First, the concept of border crossings explains how non-Indigenous students can cross the cultural borders between their worldviews, the worldview of WMS, and the worldview of IK (Aikenhead, 1996, 1997, 2002; Ogawa, 1995). The strategies of Indigenous education, which match those of place-based education, can serve as an introduction to the culture of IK; furthermore, these strategies can include exposing the assumptions of the WMS worldview, in relation to the IK worldview, that conflict with sustainability (Aikenhead, 1997, 2002; Bowers, 1993; Cajete, 1994, 2000; Kawagley, 1999b; Kawagley, Noris-Tull, & Noris-Tull, 1998; Michie, 2002; G. A. Smith, 2002; Woodhouse & Knapp, 2000). Finally, case examples illustrate how non-Indigenous students learn about WMS and IK using a critical pedagogy of place or elements of it (Brandt, 2004; Faye, 2001; Feinstein, 2004; Kimmerer, 1998; Teran & Esteva, 2000). The Indigenous strategies, along with the case examples, point to how reinhabitation of a place can be accomplished.

A Critical Pedagogy of Place

“No problem can be solved from the same level of consciousness that created it.” (Attributed to Albert Einstein)

A critical pedagogy of place is the synthesis of two educational approaches: critical pedagogy and place-based education. Gruenewald (2003) has given a comprehensive review of the literature on these approaches and argued for their synthesis. Critical pedagogy has a relatively long history and extensive theoretical background based on the work of Paulo Freire (2000) and elaborated by followers such as Giroux (1988) and McLaren (2003). It thus requires only this brief description: critical pedagogy provides the methods and goals necessary for students to recognize institutional and ideological oppression and to act against them for social justice. Place-based education, on the other hand, is a relatively new pedagogical approach (Woodhouse & Knapp, 2000), and so its significant components are described below.

Place-based education is connected to a series of other educational approaches, including outdoor education, experiential learning, environmental education, bioregional education, environment-as-integrating concept (EIC), service learning, issue-based learning, constructivism, community-oriented learning, and even multicultural education (Gruenewald, 2003; Powers, 2004; G. A. Smith, 2002; Sobel, 2006; Woodhouse & Knapp, 2000). Place-based education traces its modern roots back to the work of John Dewey who advocated for learning directly through experience in the local environment rather than mediated through the teacher and school (G. A. Smith, 2002; Woodhouse & Knapp, 2000). Rather than simply accepting direct instruction methods and decontextualized information from conventional teaching, students are encouraged to interact directly with the real world and construct their own knowledge from their experiences; hence, place-based education has a constructivist aspect based on Piaget’s work (Powers, 2004; G. A. Smith, 2002). Finally, place-based education commonly involves the goal of local community action, especially action towards environmental sustainability (Woodhouse & Knapp, 2000). Therefore, place-based education involves methods – direct experience and knowledge construction – along with the goal of local action.

In their review of the literature, Woodhouse and Knapp (2000) identified five essential characteristics of place-based education: (1) based on a local place (including all its natural and social elements), (2) experiential (direct participation or action), (3) multidisciplinary (involving many conventional
based education similar to critical pedagogy in that problems) (Bowers, 1993; 1995; 2001). In his earlier beyond “learn to earn,” a phrase that refers to purely economic purposes for education (e.g., a student attending school in order to learn skills for a future job). In his review of the literature, G.A. Smith (2002) also listed the first four elements, adding the construction of knowledge with the experiential aspect. The first three elements are strategies that give relevance to the learning situation, whereas the last two elements vaguely describe the goals. The following are examples of common goals: “connects place with self and community” (Woodhouse & Knapp, 2000, p. 4), “strengthen[s] children’s connections to others and to the regions in which they live” (G. A. Smith, 2002, p. 584), “understanding of and connection to the local place” and “enhanced stewardship behavior” (Powers, 2004, p. 19). However varied the specific objectives, none include a specific critical element – the questioning of basic assumptions embedded in the worldview of the participants.

The work of Chet Bowers gives this critical element to place-based education (Gruenewald, 2003). For more than a decade, Bowers (1993; 1995; 2001) has called for a fundamental reassessment of education in light of the present environmental crisis. He named the environmental crisis, “in part, a crisis of cultural values and beliefs” (Bowers, 1995, p. 2) and argued that the assumptions of the Western worldview have brought about the crisis. Three key assumptions include (1) the individual as the basic social unit, (2) the linear progress of society towards improvement, and (3) the anthropocentrism inherent in the belief that we can depend on ourselves instead of Nature for survival (e.g., technology can fix our problems) (Bowers, 1993; 1995; 2001). In his earlier work, Bowers (1993; 1995) was highly critical of Dewey and Freire for not challenging these assumptions in their theories and critical of current followers of their theories for ignoring the environmental crisis. In his latest work, however, Bowers (2001) has called for an eco-justice pedagogy that recognizes the relationships of cultural and ecological domination and justice (e.g., environmental racism). He recommended that educators emancipate cultural and social groups from their domination by Western culture, thereby also allowing them to retain their local knowledge of sustainability (Bowers, 2001); this process is therefore local and place-based.

Bower’s work adds a critical component to the goals of place-based education and fits well with its methods. This critical component thus makes place-based education similar to critical pedagogy in that students question the basic assumptions and structures of the world around them. A critical pedagogy of place asks students to take a critical approach to both their social and environmental contexts, and consequently issues of social and environmental justice come together (Gruenewald, 2003). The dual goals of a critical pedagogy of place are decolonization and re habitation, and these processes are mutual: “If re habitation involves learning to live well socially and ecologically in places that have been disrupted and injured, decolonization involves learning to recognize disruption and injury and to address their causes” (Gruenewald, 2003, p. 9). Thus, a critical pedagogy of place calls for both transformation (primarily based on critical pedagogy) and conservation (primarily based on place-based education).

**Indigenous Knowledge and Western Modern Science**

“In the teaching of geography and history, a sympathetic understanding [should] be fostered for the characteristics of the different peoples of the world, especially for those whom we are in the habit of describing as ‘primitive.’” (Albert Einstein)

Interest from the Western world into (IK) emerged because international governmental organizations recognized that Indigenous peoples have an extensive knowledge base regarding sustainability (UNCED, 1992; Van Damme & Neluvhalani, 2004; WCED, 1987). Therefore, since the 1980s, Western scientists have sought to define IK in terms of WMS and its applications in conventional environmental science (Aikenhead, 2002; Simonelli, 2003), and IK acquired another name as Traditional Ecological Knowledge (TEK). Other names (or closely-related terms) include local knowledge or wisdom, Indigenous technical knowledge, traditional knowledge, Indigenous science, ethnoscience, Native science, and Traditional Ecological Knowledge and Wisdom (TEKW) (Battiste, 2002, p. 7; Cajete, 2000; Snively & Corsiglia, 2001, 2005).

A typical definition of TEK is provided by Berkes, Colding, and Folke (2000):

a working definition of Traditional Ecological Knowledge [is] a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment. (p. 1252)
Such a definition is common in the scientific and educational literature (Cajete, 2000, p. 268; Nadasdy, 1999; Turner et al., 2000). In fact, Snively and Corsiglia (2001) based their definition of TEK on a previous definition by Berkes in their seminal paper *Discovering Indigenous Science: Implications for Science Education*. While acknowledging no universal definition of TEK and using multiple categories for description, Snively and Corsiglia (2001) still gave a list of attributes that served as a definition. In a later article, Snively and Corsiglia broaden the term to TEKW “which has been described and acknowledged by Western scientists” like Berkes (2005, p. 907).

In the spirit of critical pedagogy, Indigenous scholars Van Damme and Neluvhalani have asked “whose label?” (2004, p. 361). Definitions of IK, especially TEK, are either derived from scholars doing WMS (e.g., Berkes) or given legitimacy by WMS (e.g., Snively & Corsiglia). Indeed, their article titles, *Discovering Indigenous Science* (Snively & Corsiglia, 2001) and *Rediscovery of Traditional Ecological Knowledge as Adaptive Management* (Berkes et al., 2000), reflect a Western ethnocentric perspective because they imply that IK, held and used by Indigenous peoples for thousands of years, is only legitimate when discovered by Western culture. In addition, Indigenous scholar Battiste (2002) argued that the imposition of a static definition of IK is itself a Western concept, and McGregor (2004) pointed out that Indigenous peoples have a fundamentally different understanding of TEK than do Westerners. To Westerners, *traditional* often implies simple, savage, historical, and (or) dominated (Battiste, 2002; Berkes et al., 2000; Ninnes, 2000); *ecological* seems only to refer only to the natural environment; and *knowledge* implies a static body of information. Van Damme and Neluvhalani (2004) have even proposed *endogenous* (coming from within) rather than *indigenous* (originating where found) to reflect a non-Western perspective. Therefore, the definition of IK, and especially TEK as used in WMS, is problematic because it necessarily involves Western ethnocentrism and domination over Indigenous peoples.

Without trying to define IK, it is possible to paint a broad picture of what IK is and is not as McGregor (2004) did. For the purposes of this paper, *Indigenous* refers to pre-colonial peoples around the world, primarily tribal and non-industrial (also referred to as Aboriginal or Native), and *Knowledge* does not simply refer to a static body of information but rather to a complete, complex system of worldview, epistemology, rituals, skills, practices, and observations specific to a particular Indigenous people and place. IK comprises several local, dynamic systems still in use and changed by Indigenous peoples today (Battiste, 2002; Cajete, 2000; Van Damme & Neluvhalani, 2004). Unfortunately, IK continues to be lost every day (Battiste, 2002; Bowers, 2001; Feinstein, 2004).

In addition to the problem of defining IK, a critical pedagogy of place asks for an examination of the relationship between IK and WMS in the practice of science and science education. For most scholars, the debate begins with the question “is WMS universal?” that implies WMS is true for all peoples (Cobern & Loving, 2001; Ogawa, 1995; Snively & Corsiglia, 2001). From a critical perspective, even WMS is a cultural construction of knowledge and is therefore not universal; in addition, science as a cultural construct necessarily involves relations of power (Ninnes, 2000). Cobern and Loving (2001) argued that WMS is universal while also acknowledging that WMS is exclusionary and dominant. They “hate[d] to use the word hegemony” (Cobern & Loving, 2001, p. 45) but they did so anyway. Cobern and Loving (2001) recognized that IK is a valuable source of knowledge but argued that WMS would dominate IK in science education because IK cannot compete with the explanatory power of WMS (p. 62). IK should be clearly delineated as a separate sphere of knowledge and used only to validate or enhance WMS (Cobern & Loving, 2001). Not only does such an approach acknowledge and accept the dominance of WMS (Svennbeck, 2001) but it also co-opts IK to enhance that dominance.

In contrast, Snively and Corsiglia (2001) argued for the inclusion of IK as a part of science education. They justified this inclusion for two reasons: (1) IK’s use in the practice of WMS already and (2) the need for WMS to address sustainability on a global scale. Snively and Corsiglia (2001) listed several examples of the use of IK in modern WMS practices, such as resource management, and noted how IK and WMS overlap in important ways. They also contrasted WMS and IK, particularly in regard to attitudes about sustainability, and noted the different questions that IK poses about the natural world. In response to Cobern and Loving (2001), Corsiglia & Snively (2001) asserted that IK should not be excluded from WMS because the environmental crisis is so dire and WMS needs the answers that IK can provide for sustainability. In essence, IK can serve as a contrast to expose the worldview assumptions and non-sustainable implications of WMS and therefore benefit everyone (Corsiglia & Snively, 2001).

The problem of the inclusion of IK within WMS is the same as the problem of exclusion: WMS determines if IK is valuable or not and is therefore
dominant. In the practice of WMS, IK is taken and used on WMS terms. For example, Berkes et al. (2000) and Turner et al. (2000), in a special feature of the journal Ecological Applications devoted to IK, acknowledged the many interacting and dynamic components of IK and yet translated IK into ecological terms based on WMS. Both articles essentially co-opted IK into WMS frameworks and both assumed that IK must be turned into WMS to be useful. Using similar examples, Nadasdy (1999) showed that WMS researchers and government officials used IK for decision-making yet did not include the Indigenous people who provided the IK with any power in the process; Cajete (2000, pp. 295-301) provided even more examples. In the practice of science, therefore, WMS has simply appropriated and used IK, continuing Western colonialism.

Likewise, Carter (2004) applied a critical, post-colonial textual analysis to Snively and Corsiglia’s (2001) original article and claimed that their first justification for inclusion—IK’s use in WMS practice—merely allowed WMS to continue the appropriation and domination of IK. In terms of education, students would still have to accommodate the power structures of WMS whether IK is included or not. Snively and Corsiglia (2005) responded to Carter’s criticisms by reaffirming the points that sustainability must override all other goals in science education and that IK can expose the assumptions of WMS. They maintained that a social, urban theory (post-colonialism) ignores the environmental crisis and rightly criticized Carter for offering no practical solutions. McKinley and Aikenhead (2005) also criticized Carter for offering no plan of action but acknowledged her deconstructive reading as a valid (yet unfair) critique. Carter (2005) countered both responses by reiterating the imperialism of WMS and envisioning a new science education that looks beyond WMS and IK and includes critical social pedagogies. All of these discussions highlight how contentious the issue of IK in science education is, and yet they also demonstrate the importance of recognizing the power relationships inherent in science education.

Regardless of the need for global sustainability, several authors have argued that IK should not be simply appropriated by WMS. Van Damme and Neluvhalani (2004) envisioned such appropriation as colonial extraction of knowledge instead of resources. Any attempt to integrate the two fields risks perpetuating the dominance of WMS; in fact, Van Damme and Neluvhalani (2004) suggested that such integration is a form of cultural violence that assimilates Indigenous peoples into modern educational institutions. McGregor (2000) proposed a post-colonial model of “co-existence” that “promotes the functioning of both systems side by side” (p. 454). Indigenous peoples must continue to hold IK as a separate entity from WMS, and non-Indigenous peoples must recognize IK as a different yet equally valid system (Battiste, 2002; Cajete, 2000; Ninnes, 2000).

Indigenous Knowledge in the Modern Science Curriculum

“The most important method of education . . . always has consisted of that in which the pupil was urged to actual performance.” (Albert Einstein)

As Svennbeck (2001) proposed in response to Snively and Corsiglia’s (2001) seminal article, the realm of action lies beyond the more abstract debates described above (is WMS universal? should IK be a part of WMS?); a critical and pragmatic approach to science education also asks “what are our goals?” (Svennbeck, 2001, p. 80). A critical pedagogy of place provides two complementary goals: decolonization and reinhabitation. The issues of domination and oppression are clear in the definition and use of IK by WMS and should be explicitly included in any science curriculum as a decolonization process. For the process of reinhabitation, the practices and results of teaching IK and WMS together must be analyzed, and so specific strategies for teaching IK within the modern science classroom are discussed below.

This discussion of teaching IK first introduces the concept of border crossings in which students cross the mental borders into the cultures of WMS and IK. Next, the discussion focuses on teaching strategies based upon Indigenous practices. Using Indigenous teaching methods is a natural approach to introduce non-Indigenous students to the culture of IK and coincides well with place-based education. Finally, case examples from the literature reveal how a critical pedagogy of place (or parts of it) can be used with non-Indigenous students for reinhabitation—the process of learning to live well in disrupted and dominated social and ecological environments.

Several authors involved in science education have advocated using the concept of border crossings (Aikenhead, 1997, 2002; Riggs, 2005; Snively & Corsiglia, 2001, 2005). This concept began with the work of Ogawa (1995) and has been elaborated extensively by Aikenhead (1996; 1997). In his seminal paper Science Education in a Multiscience Perspective, Ogawa (1995) recognized that science education should go beyond the approach of multicultural education into the approach of multiscience education. He asserted that WMS is a knowledge construction based on Western culture.
and worldview (as does Ninnes, 2000, 2001) and, furthermore, that each culture and indeed each person has a particular science. Ogawa (1995, p. 588) defined science as a “‘rational perceiving of reality’ where ‘perceiving’ means both the action constructing reality and the construct of reality.” He then defined indigenous science as the science that belongs to a cultural group and personal science as the science that belongs to a person. Ogawa (1995) then argued that WMS is typically foreign to Indigenous and non-Indigenous students alike and suggested that students can understand more than one view of science simultaneously. Essentially, Ogawa (1995) realized that personal and social constructions of science exist, that each student brings his or her own constructions into the classroom, and that each student can understand (but not necessarily believe) multiple views of science.

Aikenhead (1996; 1997; 2002) took Ogawa’s work on WMS as a cultural construction to the next level in the context of Indigenous and non-Indigenous students. He used a practical, anthropological definition of culture as “the norms, values, beliefs, expectations, and conventional actions of a group” (Aikenhead, 1997, p. 219) which necessarily includes its worldview as “culturally validated presuppositions about the natural world” (Aikenhead, 1996, p. 4). A person’s worldview determines whether an explanation is believable or not; for example, Table 1 shows a comparison of the typical dispositions of WMS and IK towards natural and social phenomena. This table is not meant to put the two worldviews in opposition; instead, it simply illustrates the more typical assumptions of the people who believe in each worldview. Ogawa (1995, p. 591) gave an example in which Indigenous Nepalese explain an earthquake from a WMS worldview (involving a crack in the Earth) and their cultural worldview (involving a fish that supports the Earth); a typical non-Indigenous person would accept the first explanation but not the latter.

From this perspective, Aikenhead (1996; 1997) described WMS education as a cross-cultural event. WMS is a subculture of Western culture, and students bring their own subcultures (family, peers, etc.) to the classroom. Education becomes a process of cultural acquisition for students in which enculturation (WMS reinforcing their worldviews) or assimilation (WMS contradicting their worldviews and forcing them out of place) takes place (Aikenhead, 1996, 1997). WMS is a foreign culture to most Indigenous and non-Indigenous students alike, and therefore the role of the teacher is to help students cross the borders between these subcultures. Instead of enculturation or assimilation, the teacher strives for autonomous acculturation: the student can understand WMS but does not have to believe in it (Aikenhead, 1996, 1997). The student can therefore apply WMS in his or her daily life by consciously switching to the WMS worldview. Aikenhead (1996; 2002) recommended that, in the classroom, instructors should make switches between subcultures explicit so that students know the worldview from which to operate in a particular context. As with the example of the Indigenous Nepalese above, both Indigenous and non-Indigenous students can understand another worldview without having to believe in it.

Table 1.
Typical Worldview Assumptions of WMS and IK. Based on Simonelli (2003); Smith (1998); Kawagley et al. (1998); Kawagley (1999a; 1999b); Aikenhead (1996; 1997); Ogawa (1995); Cajete (1994; 2000); and Dumont (2002).

<table>
<thead>
<tr>
<th>WESTERN MODERN SCIENCE</th>
<th>INDIGENOUS KNOWLEDGE</th>
</tr>
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<tbody>
<tr>
<td>Natural</td>
<td>Social</td>
</tr>
<tr>
<td>Mechanistic</td>
<td>Individual</td>
</tr>
<tr>
<td>Analysis</td>
<td>Take</td>
</tr>
<tr>
<td>Linear</td>
<td>Reductionist</td>
</tr>
<tr>
<td>Static</td>
<td>Disconnected</td>
</tr>
<tr>
<td>Inanimate</td>
<td>Impersonal</td>
</tr>
<tr>
<td>Cause/Effect</td>
<td>Separate</td>
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<tr>
<td>Decontextual</td>
<td>Elitist</td>
</tr>
<tr>
<td>Objective</td>
<td>Rational</td>
</tr>
<tr>
<td>Abstract</td>
<td>Exclusive</td>
</tr>
<tr>
<td>Knowable</td>
<td>Formal</td>
</tr>
<tr>
<td>Material</td>
<td>Human-centered</td>
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<tr>
<td>Short-term</td>
<td>One-sided</td>
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<tr>
<td>Natural</td>
<td>Social</td>
</tr>
<tr>
<td>Organic</td>
<td>Communal</td>
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<tr>
<td>Synthesis</td>
<td>Give/take</td>
</tr>
<tr>
<td>Cyclic</td>
<td>Holistic</td>
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<tr>
<td>Dynamic</td>
<td>Connected</td>
</tr>
<tr>
<td>Animate</td>
<td>Personal</td>
</tr>
<tr>
<td>Multi-causes/effects</td>
<td>Interdependent</td>
</tr>
<tr>
<td>Contextual</td>
<td>Egalitarian</td>
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<tr>
<td>Subjective</td>
<td>Intuitive</td>
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<tr>
<td>Concrete</td>
<td>Inclusive</td>
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<tr>
<td>Mysterious</td>
<td>Informal</td>
</tr>
<tr>
<td>Spiritual</td>
<td>Earth-centered</td>
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<tr>
<td>Long-term</td>
<td>Reciprocal</td>
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</table>
Based on the approach of border crossings, the modern science curriculum can employ teaching strategies based on Indigenous worldviews for non-Indigenous students, and these strategies can also serve as an introduction to the culture of IK. First, Indigenous peoples recognize that education is intimately related to place: “[[learning is a subjective experience tied to a place environmentally, socially, and spiritually’ (Cajete, 1994, p. 33). Place involves the students’ natural and social contexts (Cajete, 1999, 2000; Kawagley, 1999a, 1999b; Klimmer, 1998; Van Damme & Neluvalhanla, 2004), and students develop relations within these contexts. For example, in the social context, Elders are usually the most important sources of knowledge, and they offer lessons through modeling of skills and oral storytelling (Cajete, 1999, 2000; Kawagley, 1999a; Klug & Whitfield, 2003; Van Damme & Neluvalhanla, 2004). Aikenhead (2002) gave an excellent example of curriculum development based upon authentic interaction with the Indigenous community and Elders from the start. Thus, genuine interaction with Elders of a local Indigenous people is an important aspect of Indigenous education (e.g., Riggs, 2005).

The natural context gives further opportunities for building relations with a place. Interaction with Nature should take place directly through experience (Aikenhead, 2002; Battiste, 2002; Cajete, 1994, 2000; Riggs, 2005); that is, the students should learn by doing and observing. Kawagley, Norris-Tull, & Norris-Tull (1998, p. 141) provided an example of Indigenous children posing their own question, designing and performing a hands-on experiment, observing the results, and ultimately asking Elders and other adults for guidance. In addition, Riggs (2005) emphasized the role of outdoor experience as a central aspect of education involving WMS and IK; outdoor experiences not only offer hands-on interaction with natural materials and processes, but they also commonly include students working cooperatively and determining the specific subject of inquiry. Experiential, hands-on learning in the outdoors is thus another crucial aspect of Indigenous education.

Because Indigenous education involves direct interaction with Elders and Nature, the experiences naturally become interdisciplinary and involve multiple subjects as defined by WMS (Cajete, 1994; Klug & Whitfield, 2003). Kawagley et al. (1998, p. 138) gave an example of building a fish trap, which necessarily involves physics, biology, and engineering. Loveland (2003) gave another example of students building a cabin to be used for trapping in the winter, and they took the project from beginning (e.g., learning about beaver habitat) to end (e.g., creating a website presentation about the process).

Direct interactions requiring multiple disciplines are the foundation for building knowledge. Furthermore, contact between non-Indigenous students and local Elders offers an excellent opportunity to discover and discuss relations of dominance and oppression from an Indigenous perspective. Learning will therefore involve several conventional subjects and become a dynamic and holistic process of constructing knowledge (Klug & Whitfield, 2003, pp. 175-193).

Based upon experience with their natural and social contexts, students are expected to reflect and act (Cajete, 1994, 2000, p. 102; Kawagley, 1999a). Reflection can take several forms, including silence (Kawagley, 1999a; McGregor, 2004), prayer, meditation (Battiste, 2002), or an intellectual process such as consideration of one’s perspective, history, and values (Snively & Corsiglia, 2001). The first three forms of reflection create space for bringing out interior knowledge or revealing spiritual knowledge (Kawagley, 1999a; Kawagley et al., 1998). Furthermore, students are expected to take action; the experience and reflection prompts students to live the new relations with community and Nature (Cajete, 1994; McGregor, 2004). In essence, students are expected to grow and develop while also contributing to the development of the community (Cajete, 1994, 1999; Kawagley, 1999a).

In brief, these characteristics of Indigenous education match the characteristics of place-based education: (1) based on a natural and social place, (2) experiential, (3) multidisciplinary, (4) connecting self to the community, and (5) beyond “learn to earn.” The last characteristic, in the context of modern science education, is usually to expose the assumptions of the WMS worldview, in relation to the IK worldview, that conflict with sustainability (Aikenhead, 1997, 2002; Bowers, 1993; Kawagley, 1999b; Kawagley et al., 1998; Michie, 2002). These assumptions include individuality, linear social progress, and anthropocentrism as identified by Bowers (1993; 1995; 2001) as well as control/domination and materialism (Cajete, 2000, pp. 302-304) relative to the assumptions of community, cyclical nature of time, Earth-centered interdependence, reciprocal relations, and spiritual character of Indigenous worldviews (see Table 1). Aikenhead (2002) and Kawagley et al. (1998) described excellent examples of these contrasts for Indigenous students; case examples for non-Indigenous students are given below because these students typically do not recognize their own worldviews without explicit instruction.

As an Indigenous instructor, Faye (2001) taught an introductory writing class to university students majoring in science. She did not use a place-based model but used a critical approach involving
discussion and reflection to show that WMS is a social construction with its own assumptions. Likewise, as an Indigenous instructor, Kimmerer (1998) taught university students majoring in natural resources management and treated instruction as a cross-cultural study that revealed the assumptions of WMS contributing to the present environmental crisis. She involved the local Indigenous community and Elders extensively and used methods of reflection but did not indicate using experiential education. In contrast, Teran and Esteva (2000) took pre-service and in-service teachers to Oaxaca, Mexico to interact with an Indigenous people. The goal of this cross-cultural experience was to show the teachers that they had a set of Western assumptions that contribute to the environmental crisis and that the Indigenous people had a set of assumptions that encouraged community and sustainability.

Feinstein (2004) used the approach of critical pedagogy of place without naming it as such. His university class of non-Indigenous and part-Indigenous students in Hawaii employed the methods of (1) service-learning, (2) interaction with local Indigenous peoples, (3) social constructivism, and (4) critical multiculturalism. The first two were based on outdoor experiences, and the latter two were based on reflective discussions and writing. The goal of the class was to expose and examine the students’ own Western worldviews, and Feinstein (2004) recounted the stories of many students who changed and one student whose identity was transformed through the class. Brandt (2004) gave the only example of a class that explicitly used a critical pedagogy of place. In New Mexico, she taught a series of three university classes in ethnobotany that involved field trips into the local communities (both Indigenous and non-Indigenous) and reflective writing and discussion. Brandt (2004) also used the border crossing approach to demonstrate the similarities and differences of WMS and IK. She observed that many students became connected to place and motivated to act by realizing the domination that WMS imposed upon the peoples and the places of the Southwest.

Conclusion

“Betterment of conditions the world over is not essentially dependent on scientific knowledge but on the fulfillment of human traditions and ideals.”

(Albert Einstein)

As the international community has recognized the grave and worldwide effects of the present environmental crisis, government reports have included calls for recognizing the role of IK in sustainability education (UNCED, 1992; WCED, 1987). Likewise, scientific organizations have acknowledged how IK can contribute to environmental sustainability in the future as it has in the past (Lambert, 2003; Simonelli, 2003), and Indigenous and non-Indigenous scholars alike have agreed on the need for both IK and WMS in sustainability education (Cajete, 2000; Faye, 2001; Simonelli, 2003; Svennbeck, 2001; Van Damme & Neluvhalani, 2004). However, any interaction between IK and WMS—between Indigenous and Western peoples and worldviews—must attend to issues of culture and power (Nagpal, 1995) and must examine the relations between the two in a critical way.

A critical pedagogy of place proposes a critical approach to sustainability education that contends with issues of power, culture, and environment and gives students the tools and the goals to tackle these issues with awareness. As noted by Bowers (2001) and Wenden (2004) in her introduction to Educating for a Culture of Social and Ecological Peace, the issues of social justice and environmental justice are intertwined and undergoing an integration in modern educational practices. A critical pedagogy of place is an example of such integration because it brings together critical pedagogy, place-based education, and critical interrogation of the Western worldview (Gruenewald, 2003). In the context of sustainability education incorporating both IK and WMS, a critical pedagogy of place demonstrates to non-Indigenous students how the WMS worldview encourages the domination of both peoples and places and, in contrast, how IK worldviews foster a reciprocal relationship with the Earth.

First, a critical pedagogy of place demands an analysis of the relationship between IK and WMS. Any static definition of IK is problematic because it necessarily involves Western ethnocentrism (Battiste, 2002; McGregor, 2004; Van Damme & Neluvhalani, 2004). Likewise, power relationships between IK and WMS must be made explicit so that WMS does not appropriate or dominate IK in science education (Cajete, 2000; Nadasdy, 1999; Van Damme & Neluvhalani, 2004). Instead, Indigenous peoples must continue to hold IK as a separate entity from WMS, and non-Indigenous peoples must recognize IK as a different yet equally valid system (Battiste, 2002; Cajete, 2000, p. 291; McGregor, 2004; Ninnes, 2000). This process is decolonization: recognizing the oppression of Indigenous peoples and their knowledges by Western colonialism and the Western worldview.

In addition to decolonization, a critical pedagogy of place calls for the goal of re inhabitation. The process of re-inhabitation is anchored in the approach of border crossings. Students are taught the subculture of WMS so that they can understand it
without necessarily believing it (Aikenhead, 1996, 1997). Likewise, students are introduced to the subculture of IK through Indigenous teaching methods that coincide with place-based education. Indigenous methods include student interaction with the social context, primarily through instruction from Elders, and direct experience with Nature, primarily through outdoor observation and action (Aikenhead, 2002; Cajete, 1999; Kawagley, 1999b; Riggs, 2005). These experiences are interdisciplinary and require the construction of knowledge (Cajete, 1994; Kawagley et al., 1998; Klug & Whitfield, 2003). Also, students are expected to reflect and act upon their experiences and new knowledge for the development of both themselves and their communities (Cajete, 1994; Kawagley, 1999a). Finally, the assumptions of the WMS worldview, relative to those of the IK worldview, are shown to conflict with sustainability (Aikenhead, 1997, 2002; Bowers, 1993; Kawagley, 1999b; Kawagley et al., 1998; Michie, 2002). The Western assumptions include individuality, linear social progress, anthropocentrism (Bowers, 1993, 1995, 2001), domination, and materialism (Cajete, 2000), and these contrast with the IK assumptions of community, cyclical nature of time, Earth-centered interdependence, reciprocal relations, and spirituality (see Table 1).

Reinhabitation is thus a way of conserving IK and yet establishing new relations with the local environment and, furthermore, with Indigenous peoples; students are shown how to relate differently to oppressed peoples and places. Case examples using a critical pedagogy of place approach with non-Indigenous students are limited; however, educators have used elements of it for the purposes of decolonization and reinhabitation (Faye, 2001; Kimmerer, 1998; Teran & Esteva, 2000). Feinstein (2004) and Brandt (2004) provided the best examples of using a critical pedagogy of place for both transformation and conservation in a local place.

The nexus of environmental and social justice education, through approaches such as a critical pedagogy of place, is still developing in theory and practice (Gruenewald, 2003; Wenden, 2004). The limited number of case examples presented here are promising yet qualitative. Quantitative results of place-based education by itself are also partial but promising for both academic achievement and environmental action (Jennings, Swidler, & Koliba, 2005; Loveland, 2003; Powers, 2004; Sobel, 2006). In general, further research is needed on the methods and outcomes of a critical pedagogy of place. In particular, classroom-based research using a critical pedagogy of place involving IK in modern science curricula is vital for the testing and validation of the pedagogical outline provided in this paper.

In conclusion, the need for environmental sustainability is desperately apparent, and IK offers a clear and necessary contrast to the WMS worldview (Aikenhead, 1997, 2002; Bowers, 2001; Faye, 2001; Kawagley et al., 1998; Kimmerer, 1998; Michie, 2002; W. S. Smith, 1998). Transformation to a sustainable, global society—one that provides adequately for the needs of future generations—requires a critical look at our own assumptions and interactions with other cultures that present new possibilities (Bowers, 2001; Cajete, 2000; G. A. Smith & Williams, 1999; Teran & Esteva, 2000). As Dr. Greg Cajete explained at the annual meeting of the AAAS in 2003: “[i]t’s a kind of education that is needed for everyone, Native and non-Native. It is the kind of education that must become a part of the expression of science education in the 21st century.” (quoted in Simonelli, 2003, p. 40)

Recommendations for Practice

“Education is what remains after one has forgotten everything one learned in school.” (Albert Einstein)

This paper gives details about some classroom practices for using IK in the modern science curriculum using a critical pedagogy of place approach. Specifically, non-Indigenous students are introduced to the Indigenous worldview through the methods of place-based education and Indigenous education, and these methods must include interaction with local Indigenous Elders, outdoor experiences and activities, interdisciplinary projects, and action for both the development of the students and their communities (Cajete, 1994, 1999; Kawagley, 1999b; Kawagley et al., 1998). Moreover, the case examples presented here highlight the importance of using self-reflection, discussion, and writing for the examination of IK and Western worldviews vis-à-vis environmental sustainability (Brandt, 2004; Faye, 2001; Feinstein, 2004; Teran & Esteva, 2000). A well-designed curriculum using a critical pedagogy of place uses all of these elements, and, as Brandt (2004) did, the instructor should modify and improve the curriculum based upon the responses and reflections of the students.

Because a science curriculum founded upon a critical pedagogy of place does not focus on the scientific method, fundamental scientific principles, and scientific applications through technology, it might face reluctance or opposition from school administrators, parents, students, and even fellow educators. Considering the contentious arguments in the literature regarding the inclusion of IK in science
education (Carter, 2004, 2005; Cobern & Loving, 2001; Corsiglia & Snively, 2001; McKinley & Aikenhead, 2005; Snively & Corsiglia, 2001, 2005), instructors should expect resistance—sometimes vehement—in one form or another. Three objections (or variations thereof) should be anticipated: (1) science classes should not involve IK because of its spiritual/religious characteristics, (2) science should be taught as objective truth and not as a Western cultural construction, and (3) science classes should not contend with social issues of culture or oppression. For the curriculum proposed in this paper to be successful, educators must respond to these objections in the context of our present environmental crisis that makes sustainability education necessary.

“The ancients knew something that we seem to have forgotten. All means prove but a blunt instrument, if they have not behind them a living spirit.” (Albert Einstein)

First, some might object to discussing the spiritual nature of IK along with WMS (e.g., Cobern & Loving, 2001); in fact, spirituality is interwoven throughout all Indigenous cultures and takes the form of ascribing spirits to animate organisms, inanimate objects, and even non-physical forces (Cajete, 1994, 2000). In this curriculum, based upon the concept of border crossings, the students are asked to understand the implications of such a worldview but not necessarily believe in the worldview. For non-Indigenous students, one implication is that Indigenous peoples hold a great deal of respect for animate organisms and inanimate objects, and the spiritual is thus translated into the practical: respect and affinity (Cajete, 1999; Kawagley, 1999b; Kawagley et al., 1998; Snively & Corsiglia, 2001). Respect and affinity inspire the sustainable relations that Indigenous peoples maintain with places and other life (Cajete, 1999, 2000; Corsiglia & Snively, 2001; Teran & Esteva, 2000; Turner et al., 2000).

In contrast, WMS assumes that objects can be manipulated and controlled by humans, and this assumption does not encourage sustainable behavior (Corsiglia & Snively, 2001; Snively & Corsiglia, 2001). Respect and affinity for a place and its non-human inhabitants is what educators call for most in sustainability education (G. A. Smith, 2002; Wenden, 2004), and IK presents a model of sustainable relations based upon respect and affinity. Therefore, students can compare and contrast the spirituality inherent in IK with their own worldviews and the assumptions of WMS, and they can come to understand how respect and relationship inform the choices that Indigenous peoples make regarding sustainable living. Students are not asked to believe in the spirituality of IK.

“All religions, arts and sciences are branches of the same tree.” (Albert Einstein)

Next, some might object to presenting WMS as a social construction instead of objective truth. This objection returns to the hegemony of Western culture and its claims of objectivity (e.g., Cobern & Loving, 2001), and indeed it may be difficult for scientists and science educators to accept science as a cultural phenomenon founded on the Western worldview (Aikenhead, 1996; Ogawa, 1995). However, if members of Western society accept Indigenous art, music, politics, economics, and other such systems as different yet valid aspects of culture, why do we not accept Indigenous science as different but valid (Snively & Corsiglia, 2001)? International governmental agencies and esteemed scientific organizations have recognized the importance of IK in the issues of science and sustainability (Lambert, 2003; Simonelli, 2003; UNCED, 1992; WCED, 1987), and many educators have called for a plurality of equal perspectives on what constitutes science (Battiste, 2002; Faye, 2001; McGregor, 2004; Ninnes, 2000; Svennbeck, 2001; Van Damme & Neluvhalani, 2004).

If those who object are asked to examine their conviction that WMS is objective, an exploration of the WMS and IK worldviews clearly demonstrates the differing assumptions of each and the implications of these assumptions upon sustainable living (e.g., Bowers, 1993; Cajete, 2000). Indeed, even most non-Indigenous students do not fully comprehend the subculture of WMS (Aikenhead, 1996; Ogawa, 1999), and thus their belief in its objectivity is not based upon critical examination. Consequently, at the least, the claim of objectivity by WMS must be reconsidered so that its assumptions may be interrogated.

“Common sense is the collection of prejudices acquired by age eighteen.” (Albert Einstein)

Finally, some might object to engaging with issues of culture and power in a science curriculum for non-Indigenous students. Indeed, even Snively and Corsiglia (2005) objected to Carter (2004) using a post-colonial theory of deconstruction against their seminal article and claimed that other science educators simply “disregard these radical postmodern positions as nonscientific” (Snively & Corsiglia, 2005, p. 909). If true, this objection returns again to the hegemony of Western culture and the invisibility of oppression to members of the dominant culture (Ninnes, 2000, 2001); most science educators in Western nations are non-Indigenous members of the dominant culture and thus are unaware of issues of power. In contrast, Indigenous science educators are especially aware of issues of power and culture and strive to make them an integral
part of the curriculum (Battiste, 2002; Faye, 2001; McGregor, 2004; Van Damme & Neluvhalani, 2004). Furthermore, as Nagpal (1995) demonstrated, leaders and activists from the developing world do not separate the issues of environmental sustainability from the issues of Western colonialism and dominance. Moreover, issues of cultural domination cannot be separated from science education because science as a dominating agent has contributed to the present environmental crisis (Bowers, 2001; Cajete, 2000; Carter, 2005). Finally, cultural oppression is a significant part of Indigenous peoples’ lives both in the past and the present (Battiste, 2002; Klug & Whitfield, 2003). In order to understand IK, students and educators must understand the people who hold and enhance IK, including their oppression (McGregor, 2004). Therefore, to fully and honestly engage with the issue of environmental sustainability on a global scale, students and educators must contend with the concomitant issue of oppression.

In summary, many—including educators—might resist using a critical pedagogy of place approach in a modern science curriculum for non-Indigenous students and might justifiably ask “is this teaching science?” In many ways, a critical pedagogy of place challenges us educators to go beyond simply teaching science toward providing an interdisciplinary education focused on the transformation and conservation necessary for a sustainable society. The authentic and complex issues of environmental sustainability and cultural oppression push us to an education that recognizes and respects a plurality of worldviews and to a world that goes beyond oppositional dualities towards interdependent relationships. Such relationships are necessary and will benefit all of us; cultural diversity is as necessary as biological diversity for adaptation in an ever-changing and rapidly-degrading world (Cajete, 1994, 2000; Kimmerer, 1998). The challenge is great, seemingly insurmountable, and yet the true purpose of education is the passage, from one generation to the next, of a cultural worldview (Bowers, 1995; Cajete, 1999, 2000); therefore, educators bear the greatest responsibility in our movement towards a sustainable world. As Dr. Greg Cajete (2000) succinctly proposed, “[w]e have to think first of the Earth and then ourselves. Can we accept such a monumental change in perspective?” (p. 304). Indeed, as educators and members of a global society in environmental crisis, we must model the change we want to see.

References


postcolonial theory to (re)read science education." *Science Education, 89*(6), 913-919.


Who is Getting Hurt?  
The Effects of Sexual Harassment on Student and Teacher Perseverance within Secondary Educational Systems
by Chelsea Hull

The purpose of this paper is to examine the definitions, occurrences, and effects of sexual harassment on student perseverance in secondary education. Research demonstrates that sexual harassment is occurring frequently to students and that sexual harassment has devastating effects on students’ educational perseverance in secondary schools. This paper concludes that both teachers and students need to be educated about the effects and prevention of harassment in their schools and create a prevention and grievance procedure in order to put a stop to sexual harassment in school.

Introduction

The purpose of this paper is to examine the definitions, occurrences, and effects of sexual harassment. Sexual harassment is unwanted attention of a sexual nature including physical or verbal actions that make the victim feel uncomfortable. The full definition of sexual harassment will be explored, later in this paper. Sexual harassment occurs frequently in this nation’s high schools and its effects are wide ranging. Students who are sexually harassed report emotional and behavioral consequences including depression, humiliation, and lowered self-esteem as well as fear of going to school, participating in class, and negative feelings towards education in general (AAUW, 1993).

The definition of sexual harassment has evolved over the last thirty years from something used to classify inappropriate behavior in the workplace to a way to recognize actions of a sexual nature in secondary educational settings. Current research shows that definitions of sexual harassment must address verbal, physical, and written harassment as well as an understanding that students may normalize these harassing behaviors. Hereafter, the current definition of sexual harassment will be used.

Educators may not be aware of the extent of sexual harassment within secondary education, however, despite its frequent occurrence throughout the United States. Students are being harassed both by other students and by teachers. One in four female and one in ten male students are sexually harassed by a teacher during their high school years and over 80% of high school students will experience at least one incident of sexual harassment by other students. The students who perpetrate and experience sexual harassment include both female and male students of all age, race, and socioeconomic backgrounds (AAUW, 1993).

Sexual harassment is not only widespread, but it is dangerous to the mental health and educational perseverance of students. Students who are sexually harassed by other students or by teachers suffer from extensive behavioral and emotional problems that affect their potential for academic success (AAUW, 1993; Charney & Russell 1994; Paludi & Brickman, 1998).

This paper found no dissention among researchers that sexual harassment is occurring frequently and that it is dangerous to the academic perseverance of students. However, this paper is limited in its scope due to the lack of research addressing the issue of teachers being harassed by students. This paper will not address sexual harassment in elementary level education, nor will it draw upon reports of college students and sexual harassment. This paper is also limited in that it will not discuss the relationship between gender issues, sexism, and sexual harassment. Doubtlessly, these topics are related, but this paper is restricted in its capacity to explore these related subjects.

The following literature review will explore the evolution and definition of the concept of sexual harassment. It will also address the frequency of harassment between students and between students and teachers. Then it will examine who is affected by sexual harassment, and finally it will summarize the research on the effects of sexual harassment.

Literature Review

The first official publication that addressed the issue of sexual discrimination in education was Title IX of the education amendments of 1972. Within Title IX, educational institutions were prohibited from discriminating on the basis of sex and were required to set up procedures to deal with grievances (Hyde, 1998). The actual term “sexual harassment” was coined in 1979 by Catherine MacKinnon, a lawyer working to make sexual harassment illegal in the workplace (Wetzel, 2000). In 1980 a federally funded organization, the Equal Employment
Opportunity Commission (EEOC), released a publication which defined the term sexual harassment for the first time. The EEOC’s definition of sexual harassment was:

unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when:
1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual’s employment;
2) submission or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual; or
3) such conduct has the purpose or effect of unreasonably interfering with an individual’s work performance or creating an intimidating, hostile, or offensive working environment. (Chamberlain, 1997, p. 136; Minnesota Department of Children, 1995, p. 6; EEOC, 1995, p. 1; Wishnietsky, 1991)

While the EEOC’s definition of sexual harassment applied to employment opportunity it would eventually become the basis for defining sexual harassment within education. It can be found in this exact form throughout sources seeking to understand the legal basis for sexual harassment law in educational settings.

Wishnietsky (1991) claimed that the term sexual harassment in an educational setting had for too long gone undefined. For the purposes of his article he used the EEOC’s definition and wherever the EEOC used words that referred to employment Wishnietsky substituted the words academic. For example, he used terms like academic advisement, academic decisions, academic performance, and academic environment (p. 164). Wishnietsky, while claiming to have nailed a concrete definition of sexual harassment, failed to address many aspects of the definition that later researchers found central to understanding the subject.

In the late ‘80s, Herbert (1989) created a new definition of sexual harassment. She wrote that sexual harassment is not only unwanted sexual advances or attention, but it is also behavior “which may be obscured by what is considered ‘normal’ behavior” (Herbert, 1989, p. 14). This definition would later become important in understanding why so few cases of sexual harassment were reported by students and teachers prior to the early 1990s.

Authors in the 1990s were able to take the EEOC’s definitions and greatly improve them by looking at the way that perceptions of sexual harassment influence the ways that students and teachers define harassment. Herbert (1989) had come close to this type of definition when she described sexual harassment as actions that can sometimes be seen as normal. However, Charney and Russell (1994) and Foulis and McCabe (1997) came much closer to pinning down exactly what should be considered sexual harassment in educational or other situations. These researchers note:

The lack of agreement among researchers on what constitutes sexual harassment is reflective of the lack of agreement from one person to another in the general population. What one person defines as sexual harassment, another person may not (Foulis & McCabe, 1997, p. 774).

Perceptions are socially constructed, differing not only according to the characteristics of the perceiver, but also according to those of the context and participants involved (Charney & Russell, 1994, p. 11).

These definitions, which explained why sexual harassment was, in fact, so hard to define would prove to be central in understanding why and to whom sexual harassment was occurring.

When asked to define sexual harassment, high school students varied in their opinions. In a survey given to 73 students in a New York high school definitions ranged widely (Loredo, 1995). Some students said that sexual harassment was when someone physically forced you to do something sexual that you did not want to do. Others said that harassment was any action that involved sexuality that made you feel uncomfortable including jokes or pranks. On still other occasions, the relationship between the harasser and the victim determined whether the action was considered sexual harassment. Loredo (1995) found that most high school students view sexual harassment in much the same way (pp. 40-41). Other studies (see AAUW, 1993; Harris, 1993; Herbert, 1989; Larkin, 1994b; Roscoe, 1994) support what Charney and Russell (1994), as well as Foulis and McCabe (1997), said in their definition of sexual harassment. The definition of sexual harassment is widely variable depending on the situation, the people involved, and the relationship of those involved.

Many researchers are concerned about students’ definitions of sexual harassment because if students see some behaviors as normal, much of the sexual harassment occurring in secondary schools could go unnoticed. Larkin (1994a) spent a great deal of time...
examinining why students would see behavior that is legally defined as harassment, as normal. In Larkin’s work with high school students, she found that there were three reasons why a student would define harassing behavior as normal. The first was that the frequency of the behavior normalized the student to the harassing behavior. The second was that the way the behavior was interpreted by others influenced whether they thought it was harassment. The last was that sexual harassment was rarely discussed or defined in school so some students were not aware that the behavior they were witnessing or taking part in should be defined as sexual harassment (Larkin, 1994a, pp. 62-63).

All the research from the last twenty-five years indicates that sexual harassment is occurring in high schools throughout the United States. It is also important to note that sexual harassment is occurring between students as well as between teachers and students. The AAUW (1993) study indicates that one in four girls and one in ten boys have been sexually harassed by a teacher or other school employee (p. 11).

In a groundbreaking study that examined sexual harassment between teachers and students, Winks (1982) demonstrated that sexual relations between teachers and students are widespread. Further research in this area by Wishnietsky (1991), Stratton and Backes (1997), Lee, Croninger, Linn, and Chen (1996), and Timmerman (2003) all show that sexual harassment does occur between teachers and students at higher rates than many researchers expect.

Wishnietsky’s (1991) research was based on surveys sent to superintendents of schools who were asked to confidentially fill out and return said surveys. Of the 65 returned surveys, 18 (27.7%) of the respondents said that a teacher within their school system had been “disciplined . . . during the past three years for sexual harassment” (p. 166). However, Wishnietsky noted that while the superintendents reported only 18 incidents of sexual harassment, another survey in the same study by Wishnietsky directed towards students found that out of 148 students, 90 of them (60.8%) reported sexual harassment by a teacher (p. 168). Wishnietsky explained this by hypothesizing that the superintendents were less likely to report sexual incidents involving teachers than the students were.

In another survey (Corbett, Gentry, & Pearson, 1993), 185 college students were asked about their experiences of sexual harassment by teachers in their high school years. Corbett et al. (1993) asked respondents first how often they thought teachers sexually harassed students. A majority of the respondents said that they thought the numbers of this kind of case were low. However, when asked to report actual incidences of being harassed, 6% reported being in situations where they had felt harassed and over half reported seeing sexual harassment or knowing someone who was sexually harassed by a teacher.

Sixteen percent of students surveyed in a study by Lee et al. (1996) reported that they had been sexually harassed by a teacher. This survey had a very large and representative sample of 1,203 students selected randomly nationwide. Lee et al. (1996) claimed that the survey’s results can be accurately applied to national averages. Timmerman’s (2003) study also showed that significant numbers of students are being sexually harassed by their teachers. Timmerman’s study was completed in the Netherlands, but the results are similar to other surveys completed in America. Timmerman’s study is also valuable because of the large size of its random sample. Of the 2,808 randomly sampled students, 27% reported having been sexually harassed by their teachers.

In a survey of 176 high school seniors, Stratton and Backes (1997) found that only eight female students (4.3%) reported having been sexually harassed by teachers and five male students reported being harassed by their coaches (p. 168). Unfortunately, Stratton and Backes (1997) give no explanation or discussion as to why these numbers are so low compared to the above studies. With the exception of Stratton and Backes (1997) study, the data indicate that sexual harassment between teachers and students is occurring fairly frequently.

Despite the vast amount of literature on the topic of sexual harassment, this review is unable to address the question of teachers being sexually harassed by students because the research to date has not examined this issue. However, the lack of data in this area cannot be taken to mean that this type of harassment is not taking place.

While there is some doubt as to how frequently sexual harassment occurs between students and teacher, there is no doubt that it occurs very frequently between students. In fact, the AAUW (1993) reported that “peer-to-peer harassment is four times as common as adult-to-student harassment” (p. 11). When researchers account for all the possible definitions of sexual harassment within school settings they find that nearly all high school students have experienced sexual harassment of some form or another.

A recent newspaper article (Miller, 2006) attested to the widespread knowledge that sexual harassment has been occurring in most U.S. high schools. In Boston, Massachusetts students started noticing that there was quite a bit of sexual harassment occurring in their school. So they took it
up on themselves to create and pass out a survey asking their schoolmates about their experiences. The students who created the survey were particularly shocked at the results. Of the 500 students who answered the survey, 80% reported that they had “experienced some form of sexual harassment during school hours” (Miller, 2006, p. 3).

These students’ survey mirrors what is happening in schools throughout the nation with regards to sexual harassment. In one of the most famous studies on sexual harassment, the American Association of University Women Educational Foundation created a massive nationwide survey to examine the extent of sexual harassment in this nation’s high schools (AAUW, 1993). This landmark study proved definitively that sexual harassment is occurring in schools. AAUW (1993) reported that four out of five (81%) students reported experiencing sexual harassment (p. 7).

Later research has shown that the original AAUW survey’s findings were correct. In 1994, the Saydel Consolidated School District in Des Moines, Iowa conducted its own survey within Iowa schools. The survey’s results show that “collectively 83% of females and 62% of males in this study have had at least one exposure to a sexually harassing situation” (Des Moines Saydel Consolidated School District, 1994, p. 3).

In their 1997 study, Stratton and Backes (1997) found that 88.1% of students had answered that they “often, occasionally, or rarely . . . experienced one or more sexual harassment behaviors during their school life.” These behaviors included making sexual comments, jokes or looks, spreading sexual rumors, flashing or mooning, touching grabbing or pinching in a sexual way, or intentionally brushing up against someone in a sexual manner (p. 167).

Sexual harassment in high school occurs across all gender, age, race, and socioeconomic groups. Most research indicates that female students are harassed more often than male students and male students are more often the perpetrators of said harassment. In the Stratton and Backes (1997) study, 93.3% of the female students reported being harassed, while 83% percent of the male students reported being harassed. Results were similar within other studies, such as the AAUW (1993) report where 85% of females and 76% of males reported being sexually harassed (p. 7). Lee et al. (1996) also found that girls were considerably more likely to be harassed than boys (83% vs. 60%) (p. 396).

Timmerman (2003) found that in most incidences of sexual harassment (87%) the perpetrators are male (p. 237). Timmerman (2003) also found that there are differences in the type of harassment that female and male students receive. Male students are often victims of verbal harassment, while female students are often victims of physical or nonverbal forms of sexual harassment (pp. 237-238). Also, Foulis and McCabe (1997) found that male students are more tolerant of sexual harassment than female students, that they see harassment as “not a big deal” (p. 781).

Hand and Sanchez (2000) also found that female and male student perceptions of sexual harassment differ. For their study, Hand and Sanchez (2000) listed 14 possible sexual harassing scenarios and asked both boys and girls to rank the harmfulness of these behaviors. Female students “perceived greater harm from sexual harassment than did boys across all 14 items” (p. 728) Hand and Sanchez (2000) also showed that girls and boys rank different forms of harassment in different orders. For the female students, being forced to kiss against their will was ranked as the most offensive sexually harassing behavior. For the male students, being called gay ranked number one, while being forced to kiss was sixth (p. 728).

Studies where age is taken into account show that older students are more likely to harass as well as be harassed (Lee et al., 1996, p. 396). Most students report being sexually harassed at least once by the end of junior high school (AAUW, 1993; Stratton, 1997) and this harassment increases over the years. Interestingly, of all the age and gender groups, the youngest female students are the most offended by sexually harassing behavior (Stone, 2004). Perhaps this can be explained by the fact that they are not desensitized to harassment at such young ages.

Although students of all races are sexually harassed and are perpetrators of sexual harassment, the study by the AAUW (1993) indicates that there are some important differences among racial groups. The study broke down the numbers for each racial group by gender. 81% of African American boys surveyed reported being harassed compared with 75% for white boys and 69% for Hispanic boys, while 84% of African American girls, 87% of white girls, and 82% of Hispanic girls reported harassment (AAUW, 1993, p. 7). Of all racial and gender groups, African American boys were the most likely to receive physical harassment and Hispanic boys were the least likely (Bryant, 1993).

Despite the differences that the AAUW (1993) claimed when referring to racial diversity and experiences of sexual harassment, Lee et al. (1996) showed in their study that factors other than gender and age such as race, school performance, or SES did not play statistically significant roles in determining whether or not a student will face harassment (p. 396).
The effects of sexual harassment on students are wide ranging, but none are positive. The AAUW (1993), in its groundbreaking study, show that sexual harassment “affects students educationally, emotionally, and behaviorally” (p. 15). The educational impact of sexual harassment is enormous. One in four students who reported being sexually harassed also said that they no longer wanted to attend school. The same statistic applies to the students who said they wanted to talk less in class because of sexual harassment (p. 15). Students who experience harassment also say that it is harder to pay attention in class, and that they score lower on tests and ultimately receive lower grades in class. Some students (about 3%) said that they even changed schools in order to get away from harassing behavior (p. 16).

It is also important to examine the emotional and behavioral consequences of sexual harassment. AAUW reports that students who are sexually harassed have long lasting emotional impairments due to their lower sense of self esteem. They constantly doubt themselves, their abilities and worth as students and as human beings (AAUW, 1993, p. 17). After being harassed, students reported the following experiences according to Paludi (1998):

- Embarrassment
- Self-consciousness
- Being less sure of themselves or less confident
- Feeling afraid or scared
- Doubting whether they could have a happy romantic relationship
- Feeling confused about who they are
- Feeling less popular (pp. 119-120)

Conversely, a few students (16% of boys and 8% of girls) actually felt more popular after being harassed (AAUW, 1993, p. 17). This data is not explained further.

Charney and Russell (1994) described even more devastating effects of sexual harassment in secondary educational settings:

Sexual harassment has the potential to affect its victims’ economic or academic status, their ability to perform on the job or at school, their career opportunities, their personal relationships, their self-esteem, their psychological well-being, and even their physical health. Surveys have shown that over 90% of victims of sexual harassment suffer from a significant degree of emotional distress. They report a wide array of symptoms, including anger, fear, depression, crying spells, anxiety, irritability, loss of self-esteem, feelings of humiliation and alienation, and a sense of helplessness and vulnerability (p. 14).

Strauss (1992) agreed with Charney and Russell (1994) about how devastating the effects of sexual harassment can be. She elaborated that often victims of sexual harassment blame themselves, making the emotional devastation even deeper. Strauss (1992) also explains that when society or the educational institution blames the victim, instead of dealing with the situation, the negative effects of the harassment are multiplied (p. 13).

Conclusion

The research presented above clearly demonstrates that sexual harassment is occurring frequently to students and that sexual harassment has devastating effects on students’ educational perseverance in secondary education. Up until the early 1970s sexual harassment in educational settings went largely unnoticed. It was only when work-related sexual harassment laws began to take effect that lawmakers and researchers began to examine sexual harassment in schools.

Creating an actual definition for sexual harassment in schools is difficult. The definition of sexual harassment changes and depends on who is asked to define it. For example, high school students who have normalized sexually harassing behaviors define harassment as only the most physical harassment like grabbing or forceful kissing (Loredo, 1995). Some researchers define sexual harassment as both physical and mental harassment. However, a more inclusive definition includes physical, mental, or written sexual harassment as well as any behavior that assumes a sexual nature that makes the victims feel uncomfortable.

One of the most disturbing aspects of current research on this topic is the amount of sexual harassment from teachers to students. Despite many studies in this area, it is difficult to pin down exactly how often this type of harassment occurs. The AAUW reports that one in four high school girls and one in ten high school boys are sexually harassed by their teachers (AAUW, 1993). In the studies cited in this paper, the numbers of students sexually harassed by teachers range from 16% (Lee et al., 1996) to over 60% (Wishnietzky, 1991).

Student-to-student sexual harassment is much more widespread and evenly distributed. In high schools throughout the United States, about 80% of high school students will be sexually harassed in
some form (AAUW, 1993; Des Moines Saydel Consolidated School District, 1994; Miller, 2006; Stratton & Backes, 1997).

Sexual harassment is also occurring to all different groups of students. Male, female, African American, white, Hispanic, high or low socioeconomic status, young and older students are all affected by sexual harassment (AAUW, 1993). Sexual harassment occurs more frequently for female students than male students, and male students see sexual harassment as less detrimental than female students (Stratton & Backes, 1997; Lee et al. 1996; Foulis & McCabe, 1997; Timmerman, 2003). Some researchers (AAUW, 1993) report differences regarding race, SES and amounts of sexual harassment but others (Lee et al., 1996) say that these differences are insignificant.

Research in this area is important because the effects of sexual harassment have an impact on students’ desire to stay in school, interest in schoolwork, ability to contribute to classroom work and their overall mental health in school (AAUW, 1993; Charney & Russell, 1994; Strauss, 1992). Students who are sexually harassed in school begin to dislike school and sometimes drop out or change schools if the harassment is bad enough (AAUW, 1993).

Further research in the area of sexual harassment’s effect on student and teacher perseverance needs to include examinations of sexually harassing behavior in which students are the harassers and teachers are the victims. The research to date has not examined this issue. However, this does not mean that this type of harassment is not occurring. This should be an area of interest because teachers who are harassed may have the same feelings of embarrassment, humiliation, or distaste for schools that students do after they are harassed. If so, this could have an impact on teachers’ perseverance in secondary education.

**Recommendations for Practice**

At this time, the federal government requires that all schools have in place a policy against sex discrimination and sexual harassment that must include a grievance and investigation procedure and a planned course of action for dealing with harassment when it occurs. Sexual harassment policies protect both students and teachers (Crisci, 1999). However many students do not even know that there are such policies in their school (Bryant, 1993). Teachers, administrators, and students need to be aware of the current policy at their school. If there is one, review it and see if it contains definitions of sexual harassment, a statement that sexual harassment will not be tolerated, a grievance filing procedure, as well as identification and punishments for those who harass (Roscoe & Strouse, 1994). At a minimum, policies should contain these elements. If a school does not have a sexual harassment policy in place it is essential that teachers and administrators work together to create one. For examples of how to create a comprehensive policy see Crisci (1999) or Wetzel and Brown (2000).

Teachers and administrators need to take these policies seriously or the students will not. As adults, it is the teachers’ job to model responsible behaviors regarding sexual harassment in order for students to understand that sexual harassment is a serious issue (Lee et al., 1996). Teachers can show they take harassment seriously by making sure that grievance and punishment procedures are implemented swiftly and consistently. Careful implementation of procedures ensures equal treatment and protection of students and teachers (Wishnietsky, 1991).

Lee et al. (1996) showed concern that many policies only reflect the “victim/perpetrator” model (p. 408). In the victim/perpetrator model, there is always one harasser and one victim. A grievance is filed by the victim, and the perpetrator is punished. However, Lee et al. (1996) stated that this model is inadequate because in most high schools, the victims are also perpetrators. It is nearly impossible to punish the guilty when sexual harassment is so normalized. Lee et al. (1996) proposed policy shifts that reflect changes in the entire school. Their research indicates that schools should become more democratic, communal, and open to discussions about sexuality. When a school promotes these values, harassment is less likely to occur and when it does, students are less fearful about reporting it.

Education is a key element in preventing sexual harassment. Both teachers and students need to be educated about the effects and prevention of harassment in their schools. Teacher education is just as important as student education. Crisci (1999) explained that “school districts should conduct periodic sexual harassment training sessions that incorporate a thorough review of the law, board policy, and the complaint process outlined in that policy” (p. 25). Teachers can also familiarize themselves with current sexual harassment laws by reading the U.S. Department of Education’s Title IX (Hyde, 1998), which outlines sexual harassment regulations. At a minimum, students should experience similar training as teachers and administrators so that they are aware of their school’s sexual harassment policy (Crisci, 1999). Another way to make students aware of harassment policies is by putting the policy in student handbooks (Wishnietsky, 1991).
If teachers and administrators wish to implement more extensive education to prevent sexual harassment in their school there are several options. Schools can either use an education plan out of a book or article (Larkin, 1994b; Paludi & Barickman, 1998; Roscoe & Strouse, 1994; Wetzel & Brown, 2000) or they can use student input to create their own courses. Most plans call for a combination of prepackaged materials as well as utilization of student input. Roscoe and Strouse’s (1994) plan details eight recommendations for topics that should be included in sexual harassment education programs:

1) Definition of sexual harassment  
2) Specific behaviors which constitute sexual harassment (including examples from the students’ lives)  
3) Noting who can be perpetrators and who can be victims  
4) Potential effects of sexual harassment on the victim  
5) Consequences of sexual harassment to the perpetrator (include school policy)  
6) Reasons why people sexually harass others  
7) Steps to take if sexually harassed (can be based on school policy or other strategies)  
8) Who to contact if sexually harassed (e.g.; school personnel, parents, other adults, friends) (p. 519)

One of the most comprehensive education programs available is Sexual Harassment and Teens (Strauss & Espeland, 1992). In a three-unit plan for educating students it incorporates student voice through prepared questionnaires and surveys as well as offering case studies for students to discuss, fact sheets, discussion topics, writing prompts, ideas for student action, and other strategies. For some teachers, resources like Sexual Harassment and Teens may be easier than creating a curriculum on their own.

No matter which methods teachers and administrators choose for their school, it is important to remember that sexual harassment education programs must be taught in a way that makes students feel safe. Creating an atmosphere of trust and respect is central to any discussion of sexual harassment. Teachers need to be respectful, careful, and serious when discussing sexual harassment, as this will increase the trust students have in their teachers and in the program which will increase the likelihood of success. Teachers need to caution each other and students not to laugh inappropriately, feel embarrassed when speaking or hearing certain terms, or ridicule each other when discussing sexual harassment (Paludi & Barickman, 1998).

References


Toward An Ecofeminist Pedagogy
by Jenn Kamrar

This paper discusses ecofeminism as it has advanced from a historical and theoretical perspective through understanding the connected oppression of Women and Nature. It then progresses toward an understanding of ecofeminist pedagogy, which combines ecofeminist principals and critical pedagogy to create a more holistic learning experience both inside and out of the classroom. In practice, ecofeminist pedagogy calls for the integration of student voice in curriculum planning while making use of experiential education, community involvement, and social justice-centered curriculum in classroom practices.

Introduction

Ecofeminism, as a philosophy that roots itself between the connected oppressions of Woman and Nature, opens conversation and connections with critical pedagogy to explore the many oppressions that exist in our greater society and schools. Ecofeminism first roots itself within a feminist belief that works both for equality of women, and also against all forms of subjugation beyond gender alone – that is to say race, class, national origin, etc. In my writing, I assess the current state of ecofeminism: what it is, where it came from, and just how real, true and gritty an ecofeminist philosophy is – how it not only exists, but flourishes – beyond the binding threads of academia; how it grows out of our daily lives, international communities, and most notable for this paper, our places of education – our classrooms.

I begin my paper discussing the history of academic ecofeminism as well as its practice by women and men in the real, breathing, alive world. From here, I continue to introduce the major tenets of ecofeminism first discussing the interwoven oppressions of Woman and Nature (Berman, 1994, Nelson, 1990). I then move to further the understanding of how the Western concepts of dualism, dichotomy, and hierarchy work to inferiorize the feminine (Matthews, 1994) and maintain control and domestication of women (Gersdorf, 2000). Finally, in moving toward an ecofeminist pedagogy I discuss a holistic approach to education, one of restoring depth to dominant-culture driven schooling (McAndrew, 1994) with greater discussion of the relationships between humans, non-humans, and the greater living world (Tassaloni, 1998), all the while trying to mete out the difference between “education as the practice of freedom and education that merely reinforces domination” (hooks, 1994, p. 4).

Ecofeminist inspired pedagogy does not have numbers to prove its efficacy, nor does it have millions of dollars in research funding to persuade academia of its “real world” relevancy. As such, my writing will seem limited in its scope to those who demand numbers and proven results. I do not have numbers. Likewise the term “ecofeminism” itself is a limiting label, it is not an inviting term, but one that seems to perplex those on the outside of the academic walls; it is in this paper that I hope to relieve some of this confusion.

As ecofeminist pedagogy develops I assume controversy will grow around both its theory and praxis; as it stands today, there is very little controversy to note. At this point in time ecofeminism is a developing area of thought that incorporates many “conflicting viewpoints,” although with an ecofeminist framework these are not seen as controversy, but diversity. As the diversity of life is manifest in the natural world, so too is it in ecofeminist thought – making ecofeminism an exciting, though difficult, discipline to define with authority.

Terry Tempest Williams writes, “If I choose not to become attached to nouns – a person, place, or thing – then when I refuse an intimate’s love or hoard my spirit, when a known landscape is bought, sold, and developed, chained or grazed to a stubble, or a hawk is shot and hung by its feet on a barbed-wire fence, my heart cannot be broken because I never risked giving it away” (Williams, 1991, p. 64). This is an academic piece written with the broken hearted in mind. I write of ecofeminism while understanding the limitations placed on me – page lengths, appropriate language, proper formatting, citing, etc. In noting this, I realize that this paper, “Toward an Ecofeminist Pedagogy,” may – by its name alone – slide swiftly into the esoteric sector of academic (or, perhaps, androcentric) writing. I have left most of my voice absent from this piece – the I of my writing self – and as such have silenced in the greatest of ways, the person I speak from, think from, feel from, bleed from. This quite blatantly goes against my own ecofeminist philosophy, but for reasons of patriarchal traditionalism, I have little choice but to concede and push forth in the boundaries given me.

I write of ecofeminism to introduce conversation, not to conquer ideas. I write for the plots of land I
pass on my way to school everyday – those plots that once stood with heavy cedars, seeping Douglas firs, and brilliant maples, those trees whose roots tangle around one another, curling deep in the earth. While now they are no longer standing high, raising up, but flattened, replaced by track housing, asphalt and soon-to-be sod lawns. I write for the lives of the three young people who have killed themselves at the high school I work in. They too no longer stand tall to the sky, but remain the unforgettable shadows of yesterday. I write because I see the connections, because I see our deep tangled roots; and so I write for, and of, ecofeminism. I write to awaken our hearts and give them away.

A Review of the Literature

History of Ecofeminism

“Ecofeminism,” in a real and applicable sense is both a movement and a philosophy for social change with its roots in the worldwide struggles of women reclaiming and sustaining themselves, their families, and their communities (Gaard & Murphy, 1998). In a more academic context, ecofeminism has become a combination of ecologically sound principles with feminist theory (Berman, 1994). While ecofeminism is first posited on the oppression of women and nature, by its very nature and its varying manifestations, ecofeminism attempts to address and deconstruct all oppressions including race, class, sexuality, national origin, etc. (Berman, 1994). In her ecofeminist response to oppression, Iris Marion Young writes “Since the exploitation of nature is bound to social processes that oppress people, and since the logic of all these systems of domination is modeled on the logic of male domination, neither nature nor women will be liberated without an explicit confrontation with the structures of male domination” (1984, p. 175).

Hidden in esoteric journals and books for many years, the academic term “ecofeminism” was first written by French feminist Francoise d’Eaubonne when she began to theorize about the intimate connection between the oppression of women and the degradation of the natural world. In her first book entitled “Ecofeminisme,” (1974) she urges women to save the earth while saving themselves, founding her work on deconstructing the power held by men over women and the earth throughout much of recorded time (Gates, 1998). From D’Eaubonne to today’s ecofeminist activists, it must be stressed that though ecofeminism as a term was birthed in the 1970’s, the main principles held by many ecofeminists are ways of being which have been existence for millennia, particularly in prepatriachal times (Eisler, 1990).

Today ecofeminism has taken on many forms, and by its pluralistic approach to both philosophical tenants and change, has manifested itself in a myriad of ways. Ecofeminist environmental activism worldwide has included Wangari Maathi’s Green Belt Movement in Kenya, the Chipko anti-deforestation movement in India, and the “Greening of Harlem” established by Bernadette Cosart to illustrate just a few examples (Diamond & Goldstein, 1990). Ecofeminism now occupies its own space within the world of literature as authors such as Leslie Marmon Silko, Terry Tempest Williams, Linda Hogan, and Ursula K. Le Guin write through ecofeminist lenses. Most significant to this paper, is where ecofeminism meets critical pedagogy in creating a new approach to teaching and learning. Pulling from theorists, writers and teachers alike, writings by Paulo Freire, bell hooks, Susan Griffin and John Paul Tassoni blend together to explore, challenge, and create a climate of change in the institution of education through a both critical-pedagogical and ecofeminist stance.

Major Tenets of Ecofeminism

I strongly identify with ecofeminism, feminist ecology, social ecology. Feminism and ecology are two beacons of hope for me. But for many women who are on the front lines of Earth-protection activities, who are most directly taking on those who are contaminating the rest of us, for many of those women, these labels and niches don’t feel quite like home. And yet without these women we would have no resistance and little knowledge about what ails us. Many of the women I have in mind as I write have little to do with feminist studies or organizations and don’t bother themselves with debates such as those between social ecology and deep ecology. They are strong, impassioned women – often rebounding from grim health catastrophes – who are plainly and simply fighting for their lives. (Lin Nelson, 1990, p. 175)

It becomes difficult to succinctly describe an ecofeminism that all ecofeminists might adhere to; this is so because the very nature of ecofeminist thought shies away from dogma and instead celebrates a plurality of beliefs. A broad survey of ecofeminism results in the following web of beliefs, though it must be remembered that some beliefs will be stronger or more applicable to some ecofeminist adherents, while others will be less important or not applicable to others by the variant nature of ecofeminism itself. Important to all aspects of
ecofeminism is the concept of nature – “nature” not as a lifeless, one-dimensional concept, but as “a community of beings, related, in the manner of a family, but nevertheless distinct. We are urged to respect the otherness, the distinct individuality of these beings, rather than seeking to merge with them, in pursuit of an undifferrentiated oneness” (Matthews, 1994, p. 163). May the discussion of ecofeminism – both women and nature – refer to “nature” in this relational way for the entirety of this paper.

Women and Nature

Many ecofeminists hold the assumption that women are able to connect with nature on a deeper level than men due to lived oppression and domination through long established patriarchal culture (Berman, 1994). To elaborate on the connected oppression of women and nature, Catrin Gersdorf writes: “the West’s cultural tradition to symbolically align ‘nature’ and ‘woman,’ and the subsequent hegemonist argument that woman has to be controlled and domesticated in much the same way as wild nature needs to be controlled and restrained in order for culture to operate effectively,” highlights the undercurrents of this shared oppression (Gersdorf, 2000, p. 175). On the other hand, there remain camps of ecofeminists who refuse to solely acknowledge the cultural connection of women and nature, and rather, hold the belief that women are also biologically closer to nature than men; and henceforth, able to have deeper relationships with the natural world (Berman, 1994). Other ecofeminists, however, have been quick to make the point that this latter view keeps a patriarchal, hierarchal concept of inferiority or superiority in place. Here, while the feminist might maintain the superiority of women over men, the misogynist would claim the inferiority of women to men, while both perpetuate the dualism that many feminists, particularly ecofeminists, have fought to resist (Zimmerman, 1990).

In addressing the wholeness of oppression facing the ties of woman and nature, Lin Nelson cautions that “it is critically important that we do not exclusively applaud or mythologize these ties (woman as eco-angel) or myopically bemoan them (woman as eco-victim),” but rather she sees that, “We need to understand how we have been brutalized, been made vulnerable, become detached, become implicated in or complicit with ecological degradation, and how we can become challengers and restorers” (1990, p. 174). In this vision, a holistic approach to ecofeminist theory is enacted and thus becomes a call for the critical revision of history, oppression, culture, and pedagogies.

Dualism, Dichotomy, and Hierarchy

Dualism, as pillar of Western socio-cultural history, has informed much in the present climate of patriarchy, perhaps most significantly manifest in the mind-body split that continues to inform most Western conceptual frameworks; however, these dichotomous splits have since separated many qualities which have more of a continuum quality than mere duality. Freya Matthews illustrates some of these qualities and the purpose for their being in the following:

From the ecofeminist point of view, dualism constitutes a full-blown ideology which interprets the world in terms of dichotomous pairs of qualities, such as active/passive, light/dark, mind/body, reason/emotion, and Culture/Nature. Not only are the qualities that appear in these pairs of opposites dichotomized, in this dualistic scheme of things; they are also hierarchically ordered: within each of the above pairs of opposites, the left-hand term is invariably regarded as ‘higher’ than the term on the right. […] The entire system exists for the purpose of legitimating the inferiorization of the feminine and all things traditionally associated with it. (Matthews, 1994, p. 165)

It is this patriarchal, hierarchal thinking that justifies the subordination of an “other” as “inferior” while maintaining a group of “superiors” in the roles of dominators; within this, the hierarchical modalities of thought may also be seen thusly: men, culture, mind over women, nature, body (McDonald, 1996). Dualism, by its nature of birthing oppression through hierarchy of man over woman and nature, is also bound with most oppressions – those of racism, classism, colonialism and neo-colonialism – all of which are viewed as intimately interconnected in ecofeminism (Gaard, 1998). Within a context of critically examining dichotomous ways of thinking, ecofeminism also pushes towards a new, “alternative way of living in nature that is not characterized by hierarchal constructions of humanity over nature [as] a vital aspect of new constructions of nature” (Sandilands, 1994, p. 168). In re-visioning dominant culture, it is ecofeminism that then purposes a relationship to nature as opposed to subjugation of nature. To further work against dualistic thinking, ecofeminism also quests for integration of normative “opposites” – those of woman and man, nature and culture, mystery and politics – so as to reevaluate these dual pairs and suggest the contingency each has on the other, to show they are of the same, to make these constructions more whole (Sandilands, 1994).
**Toward A Holistic Ethos**

Ecofeminism, in examining the connection of the similar oppressions faced by women and nature, and moving to subvert these oppressions through dismantling the philosophy of duality, also presses for a more holistic culture at large – one in which the feminine and the spiritual are safely restored. This ‘whole’ ecofeminists speak of is not the traditional, male transcendental “oneness with all” moment, but rather a new sense of wholeness where there occurs a revaluing of the whole person in the natural world (McAndrew, 1996). In modern societal norms, “ecofeminists call for restoration of the spiritual dimension of living lost in the productive/consumptive materialism of our whiter than white world” (McAndrew, 1994, p. 374). Instead, an ecofeminist alternative is proposed, one in which women and men work together cooperatively and sustainably, so as to make common ground between the genders while working toward a true postpatriarchal partnership society (Plant, 1990).

**Ecofeminist Pedagogy**

To teach through the lens of ecofeminist pedagogy means to refute patriarchal dominance and the exercise of power through the use of language, traditional means of teaching, and traditional understandings of learning. As such, ecofeminist pedagogy is a manner of teaching that pulls from the working premise that: “Our reality is ‘man-made,’ as within Western patriarchal society men have historically, men hold and historically have held positions of power and dominance through which meaning is controlled. As such, language is, in itself a political microcosm which sets up and reproduces predominant power relationships” (Berman, 1994, p. 173). An ecofeminist approach to teaching is an approach that opposes these predominant power relationships. In this way, ecofeminist pedagogy combines with it critical-liberatory pedagogy, pulling greatly from the theory and work of Paulo Freire, so as to revolutionize what is taught, how it is taught and how it is learned.

What comes to the center of an ecofeminist education then is learning, especially learning as it is mimicked from the natural world. In likening the ecology of a class to the ecology of the natural world, diversity is welcomed as a strengthening force within the classroom (Bowers, 1995). Intrinsic to diversity is the acknowledgment that there are different ways of knowing, different ways of learning, and different ways of being educated (hooks, 1994). This calls upon the teachers to be present and active with their students and the classroom culture they have leadership within, while being self-reflective and corrective with themselves (Freire, 1970). In issues of diversity in an ecofeminist pedagogy, bell hooks calls out teachers whom are unprepared to deal with a multitude of diversity in their classrooms:

Educators are poorly prepared when we actually confront diversity. […] To teach effectively a diverse student body, I have to learn [cultural] codes. And so do students. This act alone transforms the classroom. The sharing of ideas and information does not always progress as quickly as it may in more homogeneous setting. Often, professors and students have to learn to accept different ways of knowing, new epistemologies, in the cultural setting. (hooks, 1994, p. 41)

Critical ecofeminist pedagogy also refutes hierarchy, and instead places the importance of heterarchy as the operation of the classroom. This heterarchy then leads to the teacher taking on the role of guide, while maintaining a relationship between teacher and students as co-learners collectively learning together (Freire, 1970). The placing of the teacher at the front and center of the classroom is avoided in this situation, and so in such a manner, students are asked to work together collaboratively to make decisions about topics studied, preferred forms of learning, and pace of assignments (McAndrew, 1996). In moving towards heterarchy and transforming traditional teaching methodologies to an ecofeminist-inspired classroom, more ecofeminist-inspired discussion may occur around alternatives to hierarchy in current non-egalitarian culture; examining more closely the domination that exists not only between humans, but also between humans, non-humans, and the rest of the living world (Tassaloni, 1998). What perhaps can be most strongly said of an ecofeminist pedagogy, is that its aims are to strongly delineate between “education as the practice of freedom and education that merely reinforces domination” (hooks, 1994, p. 4). Pedagogy in the critical, ecofeminist vein then, is a hard refusal of all forms of domination and celebration of a whole, human learner at the center of education who exists within a context of a larger environment, ecosystem, and natural world.

**Conclusion of the Literature**

“Ecofeminisme,” as a term was first birthed in the ‘70s by French writer Francoise d’Eaubonne. Ecofeminism today, as a philosophy for social change, emphasizes the connected oppressions of Woman and Nature, while also moving to deconstruct all existing oppressions as they exist in their myriad manifestations – from race to class,
national origin to sexuality, etc. (Berman, 1994). Though academic in nature, ecofeminism is not relegated to the bounds of the institution; instead, ecofeminism can be seen alive in a number of international movements, from Kenya's Green Belt Movement to India's Chipko movement. Ecofeminism’s aim is to disassemble restrictions placed on our experiences by Western dualities, dichotomies, and hierarchy (Matthews, 1994). In an ecofeminist pedagogy, the classroom is likened to the natural world, wherein diversity is inherent and necessary for survival (Bowers, 1995). More simplistically, ecofeminism is a struggle to legitimate the once inferiorized and naturalize the unnatural.

It is difficult to describe an ecofeminism that is definitive, succinct, and unchanging, precisely because “ecofeminism” as a term and a body of thought does not strive to be any one of these things, in fact, it exists for a nearly opposite purpose – to unite and empower a body of thought, previously unknown to most. Within this mottled and changing body of work, nature is viewed as “a community of beings, related, in the manner of a family, but nevertheless distinct. We are urged to respect the otherness, the distinct individuality of these being, rather than seeking to merge with them, in pursuit of an undifferentiated oneness” (Matthews, 1994, p. 163). Popular thought among many female and male ecofeminists is the discussion of the shared oppression of Woman and Nature. This linked oppression is highlighted by Western societies' need for Women to be tamed, domesticated, and cornered into demure selves, while much in the same way. Nature, too, has been hacked apart, restrained, and domesticated (Gersdorf, 2000).

Ecofeminism refutes dualisms, dichotomies and hierarchies, calling these modalities of thought justification for subordination, such as in labeling one “inferior” while another “superior” (McDonald, 1996). In shying from these binary thought modalities, ecofeminism relates to many oppressions – racism, classism, colonialism, neo-colonialism, and so forth – that are built upon hierarchy, dualism, and dichotomies (Gaard, 1998). It is now that, as Donald McAndrew writes, ecofeminism calls for “a restoration of the spiritual dimension of living lost in the productive/consumptive materialism of our whiter than white world” (1994, p. 374), a restoration that may be grounded in emerging ecofeminist pedagogic theory.

In a reframing of critical pedagogic theory in ecofeminism, theories from bell hooks, Susan Griffin, and Paulo Freire can be combined by ecofeminist practitioners to create new theory for a new educational practice, one where students and teachers are both engaged, questioning, and reflective on issues that comprise the core of our personal and educative experiences. When seeing the natural world in our classrooms, when putting ecofeminist pedagogy as praxis, we as teachers must begin to see that different ways of knowing, different ways of learning, and different ways of being educated are the realities of our classrooms (hooks, 1994).

Ecofeminism, in spite of its varying manifestations and work, is still a relatively new part of the academy, much less of traditionally accepted academia. In this way, it is difficult to those coming into ecofeminism as there are so few models to follow. Within the vein of ecofeminism, ecofeminist pedagogy remains a limited body of writing, research, and practice - both making it more difficult to approach, while also all the more necessary to explore.

Recommendations for Practice

Just as an understanding of ecofeminism cannot be essentialized, working towards ecofeminist pedagogy is not moving one direction with but one path. As we move towards ecofeminism in our teaching practices, as we deepen our understandings of the connected oppressions of Woman and Nature which Berman and Nelson describe, and as we continue to dissect dualism, dichotomy and hierarchy as they have colonized ourselves and our classrooms, we begin to see the myriad ways in which we can begin to subvert the systems of oppression that have held hostage authentic learning for so long. It is in this vision that we can begin to liberate our classrooms.

By integrating ecofeminist pedagogy into praxis, we may begin by stepping outside of the classroom, by literally moving our classrooms outside. For in order to see beyond the walls we work, to see into ourselves and the nature of ourselves in this world, we must physically see ourselves in the world – outside of fluorescent lights, outside of laminated floors, and alive outside of the desks that separate ourselves from one another, and without severing our heads from our hearts. In stepping to the outside world – that of city, suburb, or country, we begin to engage the mind and body as part of the learning process, as a part of education, and as a part of ourselves. As we step outside our classrooms, we can begin to work within our communities to create a space for our students where education comes with context, where our theory and practice are linked, and where apprenticeships are formed. An ecofeminist education strives for this engagement and reflection on self, community, world, and place.

When the classroom exists both within and without its physical walls, an ecofeminist pedagogy
can begin to breathe. When constructing an ecofeminist classroom, we must veer far from the conventional model of today’s industrial education. Instead of a status quo public school classroom, an ecofeminist classroom seeks to model the ecology of the natural world (Bowers, 1995) – one where interdependence, interconnection, and diversity are necessary, while hierarchy is thrown out and heterarchy invited in. An ecofeminist pedagogy is where power and decision making are given to the greater learning community and where the teacher, though still standing as a guide, steps back from “expert” to instead, elder, as one who guides through experience and knowledge while allowing for the experiences of students to be integrated and validated in the classroom. In this model of developing a cohesive critically-questioning learning community, the students are empowered, proactive, and engaged. In this model of a heterarchical classroom, a grading scale is not used; instead, students are assessed through narrative evaluations while working on projects, portfolios, and presentations while in-class performance and participation remain key. This moving away from a letter-to-number grading system helps to instill respect, authenticity, and an education based on personal growth as opposed to a removed quantitative system of assessment.

In working against dualism, ecofeminist pedagogy asks for us to think beyond the modalities of active vs. passive, light vs. dark, mind vs. reason and Culture vs. Nature (Matthews, 1994). Beginning to model ecofeminism in teaching is an active rejection of these dualities – both from the self as teacher and students as learners. Instead of exploring literary symbology through such dualities, a teacher may be more inclined to explore and dissect how dualities and essentialization first occur, explain what they are, and guide students beyond essentialist thought so as to encourage thinking through the gray areas and questioning what might not be initially apparent to them and instill the importance of critical consciousness.

Initial suggestions for an ecofeminist classroom:

- Use alternatives to letter/number grading – use of narrative evaluations
- Create a holistic learning experience – moving against perpetuating binary, dichotomous, and dualistic thought
- Contextualize learning through experience – work with local community to make student-community apprenticeships viable learning opportunities
- Use culturally relevant pedagogy in a transformative manner

Cautions for implementation:

- By way of being a teacher, a power dynamic cannot be eliminated in student to teacher relationships – in working to guide our students, we must remember this
- Guiding our students and listening to their input does not equal an anarchic classroom, but rather one where we can work to hear all voices equally and work to address all voices in an equitable manner

Educators with ecofeminist-minded classrooms must be prepared to be faced with reservation and hostility, both on part of the greater teaching community, administrators, parents, and students. As our colonized, domination-oriented world continues to recycle its cultural capital, we must also struggle against it. In resistance, we oppose the destruction that has been done unto our own selves, greater society, and the earth itself, seeing none as more important than the other but all important and interconnected to one another.

References


An Equation for Greater Success in Mathematics:
Constructivist Theory + Supporting Pedagogy = Greater Achievement

by Joyce Kilner

This paper examines the effectiveness of using constructivist instead of behavioral learning theories and pedagogies in math education. In addition, peer-reviewed research about teaching practices employed currently in the U.S. and the resultant levels of mathematical achievement are investigated. The article concludes that when classroom practice supports constructivist theories of developing intelligence instead of behavioristic theories of fixed, innate intelligence, students’ attitudes towards mathematics as well as a desire to participate in mathematics are enhanced by progressive methods. The adoption of a constructivist approach for teaching mathematics is recommended for fostering an environment that is child-centered and rich in conceptual understanding.

Introduction

In an effort to increase achievement levels in mathematics, many educators and researchers contend that the traditional approach, that of treating mathematics as a set of facts and procedures to be memorized and practiced, is not adequate to develop students' understanding, interest, and confidence in the subject. When mathematical achievement levels are inadequate and teaching methods are predominately behavioristic, an appropriate change in approach is called for. While no method of teaching can be completely effective for every student, when appropriate pedagogy is matched with supporting cognitive theory, effectiveness is enhanced (Malloy 2004). This paper examines two opposing cognitive theories and the pedagogical theory supported by each. In addition, the corollary effects of pedagogical choice, particularly current levels of mathematical achievement and attitudes that foster achievement are explored.

Ideas about how learning occurs and what demonstrates that learning has taken place, lie at the heart of the problem. Two conflicting cognitive theories explaining the learning process have emerged: constructivist and behaviorist. Constructivist theory is concerned with how the child forms (constructs) new understanding and is centered on the child. Meanwhile, behaviorist theory relates learning to skill development through the reinforcement of desired behavior or the discouragement of undesired behavior and is centered on producing preferred results. Thus, educators agreeing with constructivist theory are likely to implement teaching methods aimed at developing a child’s intellect and focus on thoroughness of understanding. On the other hand, educators in agreement with behaviorist theory are inclined to employ teaching strategies designed to produce particular responses and focus on evidence of particular behaviors.

Historically, the arrival of the industrial revolution and the increased acceptance of scientific evidence as credible, have influenced education, particularly mathematics, to be taught behavioristically. However, while few educators today defend the use of behavioristic teaching methods, it remains the most prevalent approach for mathematics instruction in the United States (Liberto & McCoy, 2005; Stage, 2001; Stevenson & Stigler, 1992). This behavioristic approach reflects a persisting idea that mathematics is solely a set of procedures requiring drill and practice.

Achievement levels of math students in the U.S. compared internationally, nationally and in the state of Washington, expose the resultant deficit of current teaching methods. Internationally, as demonstrated by the TIMSS (Third International Mathematics and Science Study), students in the U.S. rank well below twenty other nations in their ability to demonstrate mathematical understanding (Stigler & Hiebert, 1999). Furthermore, the NAEP (National Assessment of Educational Progress) disclosed no significant improvement in twelfth-grade students’ mathematical ability in the United States in over thirty years (National Center of Educational Statistics, 2006). Similarly, in Washington State, the results of the WASL (Washington Assessment of Student Learning) revealed that nearly half of the tenth-grade students tested did not pass the math portion of the assessment (Bergeson, 2006). Reflecting on current levels of achievement has caused educational researchers and educators to question the quality of instruction currently employed and to investigate the possible benefits of constructivist teaching methods. The research cited in this paper argues in favor of the adoption of constructivist theory and practices to foster a positive
attitude toward mathematics and enhance a student’s ability to succeed.

Constructivist theory embraces the idea that intelligence is malleable and rejects the idea of fixed intelligence. Although this notion is not generally supported in the U.S., in those countries where the ability to succeed in mathematics is related to hard work rather than innate levels of intelligence, students achieve at a higher rate (Tsao, 2004). When work is valued over the appearance of being smart, positive attitudes of perseverance, willingness to commit time and effort, and engaging attitudes are more likely to result and produce greater achievement.

The discussion of the enhancement of mathematical achievement that follows is divided accordingly: The first two parts compare constructivist and behaviorist cognitive theory and the corresponding pedagogy based upon each cognitive theory. Next is an examination of current mathematical achievement levels in the United States, followed by an exploration of existing practices of teachers of mathematics and how these practices relate to present levels of achievement. Subsequently, the resultant increase in achievement from the implementation of constructivist pedagogy is considered. Finally, the implications of the findings of this research are contemplated.

**Literature Review**

**Two Opposing Theories**

What is taught in public schools and how it is taught significantly contributes to the quality and type of education students’ experience. Historically, decisions regarding curriculum and pedagogy in the United States have been influenced by educational psychologists, cognitive theory, politicians, and the socioeconomic changes of the industrial revolution, (Klein, 2003; Spring, 2004). Stigler and Hiebert (2004) argue little has changed in mathematics classrooms in the last 100 years. Since decisions made regarding students’ educational experience are consistently reflected in the level of achievement they attain (Stevenson & Stigler, 1992), there has been significant controversy over the methods proposed for adoption and employment in schools across the nation (Klein, 2003). More recently, new concern has surfaced over poor levels of achievement in mathematics in the U.S. As achievement levels are measured and compared both nationally and internationally, educators, administrators, and politicians are looking more closely at what is being taught and methods currently used to teach mathematics (Stigler & Hiebert, 1999). Attention to achievement, content, and pedagogy has brought with it controversy. The effectiveness of one teaching method over another and the amount of content introduced to students is being questioned. Klein (2003) explains that there are two opposing schools of thought, each having their basis in content—the depth or breadth of content determining the pedagogy used. If thoroughness is the concentration of the content, then the method of teaching must be student-centered, discovery-oriented, and contextual. On the other hand, if the amount of content is the focus, the approach required is teacher-based, quick-paced, and more superficial (Klein, 2003). Therefore, the debate centers on the emphasis of quality versus quantity—both sides of the argument being supported by opposing cognitive theory affirming their position.

The cognitive theories of Jean Piaget support thoroughness of content, student-centered learning, discovery, and contextual understanding. Piaget’s approach is more qualitative than quantitative. “Piaget was not concerned with how much a child knows, but how he came to learn it” (Singer & Revenson, 1996, p. 3). Through in-depth conversations with a child, Piaget analyzed the child’s way of thinking and perused their logic and reasoning. As a result, Piaget determined that a child comes to know things because the innately curious child constructs ideas about the workings of the world they experience. As a child’s capacity to understand grows (in stages), their ideas about their world become more intricate and abstract. Piaget explained that a child’s new experiences compel them to create new theories to understand their world (Singer & Revenson, 1996).

Like Piaget, Vygotsky theorizes that learning occurs as an individual constructs ideas and makes sense of new experiences while linking new information to prior understanding. While Piaget emphasizes stages of development, Vygotsky is more concerned with social interaction. He maintains that “adults, as representatives of children’s social environment supply them with the so-called psychological tools, which being acquired and internalized, come to mediate children’s mental processes” (Karpov, 2005, p. 15). According to Vygotsky, not only do children acquire tools from adults that help them to make sense of their world, they also use adults and more capable peers to provide scaffolding (assistance with tasks that cannot be completed independently). The provided scaffolding allows a child to complete tasks, thus learning and growing within their zone of proximal development (Tudge, 1990). Vygotsky conceived of the idea of the zone of proximal development, which is the difference between what a person can learn and do without help, and what they are capable of doing with assistance from an adult or more capable peer.
According to Vygotsky, when learning occurs, the student moves forward within the zone of proximal development, which now becomes their level of actual development (Vygotsky, 1978). Both Piaget’s and Vygotsky’s cognitive theories focus on facilitating the individual child as they go about constructing new thoughts and ideas, and center on the cognitive development a child obtains. Thus, the child-centered theories of Piaget and Vygotsky are referred to as constructivist theories.

In contrast to the depth of content valued by constructivists, behaviorists value the breadth of content. The behaviorist theories of B. F. Skinner support teacher-based, quick-paced, more superficial learning. Skinner discounts constructivist theories as being introspective and subjective. In addition, he believes the studies of constructivists lack experimental rigor and the support of empirical evidence (O’Donahue & Ferguson, 2001; Richelle, 1995). Skinner focused on what can be observed outwardly during empirical studies using scientific method—in other words, the behavior of his subject. The subjects of Skinner’s experiments were animals, typically rats and pigeons, from which he would gather information and extrapolate his findings to make inferences about human behavior (Richelle, 1995). Skinner’s ideas concur with evolutionary theory, that humans and animals have common ancestry and behavioral traits, thus creating continuity in behavior across species (O’Donahue & Ferguson, 2001). From his studies, Skinner concluded that organisms, having an innate set of capabilities, are informed by their interaction with their environment. When an organism reacts to its surroundings, its environment is changed either negatively or positively. Thus, the consequence for the organism’s behavior is understood and the behavior is either discouraged or reinforced (O’Donahue & Ferguson, 2001). Based on the stimulus and response of animals, Skinner deduced what he believed were effective and efficient methods of developing skills in animals as well as humans.

Although Piaget and Skinner were contemporaries and prominent figures in the United States, they largely ignored each other’s research. Even though Piaget was French and Skinner was fluent in that language, there is no evidence that one examined the other’s work in any detail. Referring to the other’s theories in overgeneralizations, Piaget and Skinner never recognized similarities or possibilities for agreement, only opposition (Richelle, 1995). It is possible that had the theorists themselves found commonality in some aspects of their studies, the resultant pedagogies may have developed with some overlapping similarities—however, this was not the case (Richelle, 1995).

**Two Opposing Pedagogies**

In concert with the constructivist theories of Piaget and Vygotsky and in opposition to behaviorist theories, John Dewey developed and practiced his progressive pedagogical theories at the Laboratory School in Chicago he founded in 1896. Dewey’s pedagogy involves aiding a child’s developing intellect. Dewey (1938/1997) states that learning “springs from the easy and ready contact and communication with others” (p. 60). He believes that when students relate to teachers, as well as when students relate to other students, learning can occur freely, in an unforced setting. In addition, Dewey promotes the use of democratic social situations because students enjoy being treated kindly and interaction happens more readily. This in turn creates a higher quality of educational experience—much more than would be possible in a traditional school with a teacher presiding over the class (Dewey, 1938/1997). At the time the Laboratory School was being created, the prevalent ideas for classroom management were those that exerted authoritarian control over students—a common practice being to bolt individual student desks to the floor facing the front of the classroom. In fact, one of the obstacles Dewey faced in forming the Laboratory School was finding furniture that would allow children to work in groups and permit freedom of movement (Spring, 2004, p. 273). The installation of tables and chairs instead of individual desks facilitates learning by experience, as well as contact and communication with others.

Contact and communication with other students is the antithesis of classroom behavior reflective of the industrial revolution, assembly line efficiency, and some favored educational methods of the early twentieth century. During this time, Johann Herbart, a German psychologist, popularized and advocated pedagogy more closely aligned with behaviorist theory and aimed at producing specific responses. Spring (2004, p. 272) explains that Herbart’s methodology calls for the organization of lesson material (a formal lesson plan), and the presentation of subject matter by the teacher in a sequential manner. The five step Herbartian model of teaching includes: (1) preparation of the student for the new lesson, (2) presentation of new material, (3) association of new information by comparison, (4) the use of examples to generalize or define, and (5) testing to confirm student’s ability to apply new knowledge. As this model requires students to direct their attention solely to the teacher, the use of individual desks aligned in rows, facing the front of
the classroom, and bolted to the floor, worked well for Herbart’s teaching model.

Like Herbart, and in keeping with behaviorist theory and teacher-based instruction, the pedagogy of Edward Thorndike gained prominence in the first half of the twentieth century. A colleague of Skinner, Thorndike (1999) advanced his scientifically supported pedagogy originally published in 1906, as “the art of giving and withholding stimuli with the result of producing or preventing certain responses” (p. 7). To Thorndike, education is demonstrated by change in outward behavior. Therefore, a teacher’s primary responsibility is to reflect on the desired change of the student, and then determine how to affect the change (Thorndike, 1999). Teaching centered on the maintenance and increase of desired behavior in an efficient manner became as accepted as classrooms with rows of desks in the 1900s.

The constructivist and behaviorist theories and pedagogy continued to find their way into the American schools. According to Spring (2004), between 1920 and 1940, a mix of student-centered and teacher-centered instruction was used in about half of the classrooms, with the remaining half nearly evenly divided using strictly student-centered or solely teacher-centered instruction. For teachers, it was problematic to resolve the opposition in the pedagogies of Dewey and Thorndike and the cognitive theories of Piaget and Skinner. The idea of building a democratic learning community, with in-depth, child-centered learning, greatly conflicts with the idea of an efficient, methodic, empirically and scientifically-underpinned method of teacher-centered, controlled learning. Presently, teachers continue to face the same dilemma regarding cognitive theories and their resultant pedagogies. Malloy (2004) maintains that understanding is enhanced when an educator’s practice is matched with their knowledge of how students learn. Furthermore, Stigler and Heibert (1999) warn, “If the method is limited, students’ learning will be limited, no matter how talented the teacher. Teachers are only as good as the methods of teaching they use” (p. 175). Therefore, the educator’s decision regarding cognitive theories and pedagogy used in their classroom are of primary importance, have consequences for the students, and remain relevant issues today.

The investigation and study of cognitive theory and pedagogy has led The National Council of Teachers of Mathematics (NCTM), a group whose membership consists of over 100,000 teachers of mathematics, to endorse constructivist theory and pedagogy. The NCTM (2006) envisions a classroom where:

Teachers help students make, refine, and explore conjectures on the basis of evidence and use a variety of reasoning and proof techniques to confirm or disprove those conjectures. Students are flexible and resourceful problem solvers. Alone or in groups and with access to technology, they work productively and reflectively, with the skilled guidance of their teachers.

The NCTM proposes moving away from the ideology of the teacher having the exclusive intellectual authority while the students remain passive, repeat drills and memorize procedures (Malloy, 2004). Additionally, the development of the ability to think and reason mathematically, to make conjectures, and develop deductive arguments, provide the student with a foundation for further understanding and encourage the continued study of mathematics (NCTM, 2006). By understanding constructivist theory and practicing appropriate pedagogy, the NCTM believes students will emerge from classrooms having greater mathematical skills and understanding.

While the majority of educators today are in agreement with the NCTM, and scholarly articles disagreeing with constructivist teaching methods are few, there are some who voice opposition to such methods and argue in favor of the effectiveness of teacher-centered methods and direct instruction (Klahr & Nigam, 2004; Klein, 2003; Magliaro, Locke, & Burton, 2005). Magliaro, Locke, and Burton (2005) acknowledge that B. F. Skinner’s philosophy has influenced curriculum, instruction and research in the United States for more than thirty years. They believe direct instruction to be a time-tested model that can be used effectively to promote student success. In order to facilitate the linear, step-by-step nature of learning, behaviorist educators advocate the use of “rapid questioning, frequent testing, continuous interaction, and positive reinforcement” (Magliaro et al., 2005, p. 44). Klahr and Nigam (2004) also support direct instruction, maintaining that most of what students learn of math and science, they learn from their teachers, not by discovering it themselves. Because of the difficulty and complexity of math and science, Klahr and Nigam (2004) claim that, “in most cases children in discovery situations are more likely than those receiving direct instruction to encounter inconsistent or misleading feedback, encoding errors, casual misattributions, and inadequate practice and elaborations” (p. 661). Like Klahr and Nigam, Klein (2003) agrees with the effectiveness of direct instruction, adding that time-consuming activities such as problem-solving and investigations use up...
too much of a student’s valuable time and produce confusion of the fundamental mathematics involved. By viewing mathematics as a set of procedures that can be learned systematically, behaviorists believe that the skills necessary to become proficient in mathematics are best and most efficiently learned by methods using direct instruction.

Klein (2007) does not see much hope in reconciliation between the constructivist and behaviorist methods and states, “The math wars are unlikely to end until programmes espoused by progressives incorporate the intellectual content demanded by parents of school children and mathematicians” (p. 12). Klein’s statement typifies the underlying belief that constructivist instruction is inefficient, and while children may enjoy the experimentation, educational gains are small. On the other hand, constructivists consider direct instruction to be harsh, impersonal, and rigid (Borsuk, 2001), as well as leading to learning that is frequently described as “a mile wide and an inch deep.” With both sides claiming to be the best method of teaching based on the best cognitive theory, the investigation of actual classroom instruction to identify which methods are being used and which methods result in the best learning is warranted.

Current Achievement Levels
In 1999, the TIMSS was conducted. This massive study was carried out to determine the level of mathematic and science achievement of students throughout the world. Students in fourth, eighth, and twelfth grade in forty-one nations were studied. American students did not fare well in the comparison. Fourteen nations scored about the same as the United States, however, twenty scored significantly higher and only seven nations scored significantly lower than the U.S. This news received attention from the U.S. media, politicians, educational administrators and teachers—all insisting on the need for improvement (Stigler & Hiebert, 1999). While revealing the need for betterment, more insight was needed to determine why other nations were having success in teaching these difficult subjects and in comparison, the United States was not.

Nationwide, the need for improvement is also recognized. The U.S. Department of Education, the federal agency responsible for monitoring the quality of education within the United States, does its own testing. They are responsible by law for conducting the National Assessment of Educational Progress (NAEP). The assessment involves testing more than 333,000 students in the fourth, eighth, and twelfth grades in public and nonpublic schools within 53 states and jurisdictions, and is often referred to as the nation’s report card. Although achievement levels show some improvement in mathematics at the fourth and eighth grade levels, twelfth grade achievement has shown no significant positive change since 1973. In 2004, the average twelfth grade student could only demonstrate understanding of moderately complex procedures and reasoning. These high school seniors could calculate decimals, simple fractions and commonly encountered percentages. They could also identify geometric figures, calculate the area of a rectangle and solve simple linear equations. However, they were not able to competently perform operations involving signed numbers, exponents or square roots (National Center of Educational Statistics, 2006). This level of mathematical ability is not limited to the nation as a whole—similar results were found in Washington State (Bergeson, 2006).

Locally, the results of current teaching practices were also investigated. After enacting higher standards for teachers of mathematics in 2004, as well as focusing on quality education, the Washington State Board of Education and Professional Educator Standards Board admits after two years, they have seen little success or positive change—especially for low-income and minority students (WSBE, 2006). On September 8, 2006, Superintendent of Public Instruction, Terry Bergeson conveyed the results of the latest WASL. She reported that 51 percent of tenth-grade students were able to pass the math portion of the exam; just under half of the tenth-grade students did not pass. Furthermore, the WASL is given in three parts; reading, writing, and mathematics. Of those who passed two of the three sections, 92.3 percent failed the math section (Bergeson, 2006). The meaning for over 10,000 students in Washington State is that they will not graduate from high school unless they can demonstrate significant improvement in their math skills.

Current Teaching Practices
In addition to determining current levels of mathematical achievement, researchers examined and compared the teaching practices in schools in the U.S. with those in schools internationally to identify the most successful practices. Stigler and Hiebert (2004) studied a selection of videotapes of eighth grade math classes in Germany, Japan, and the United States. The researchers documented and examined the activities of typical classrooms in the higher performing countries of Japan and Germany and compared them to classroom activities in the U.S. As teaching practices in the three countries were scrutinized, researchers noticed that although practices differed notably from country to country,
they remained rather constant within a given nation. Due to social and economic diversity and local control of educational systems in the U.S., researchers expected a greater variety of teaching methods in the United States, however, teaching techniques were substantially more similar than anticipated (Stigler & Hiebert, 2004). While reviewing the videotapes, Stigler and Hiebert (2004) concluded that the difference in students’ mathematical achievement levels is due largely to the way a teacher works with students on the problems presented. It was observed that in Germany and Japan, teachers seek to develop concepts and make connections to previous material. However, in the United States, eighth grade students spend the majority of their class time practicing procedures. Additionally, they observed that American teachers often provide answers to challenging problems and numbers are frequently given to students so they can plug them in to get the correct answer. Furthermore, in classrooms throughout the U.S., conceptual ideas are seldom discussed (Stigler & Hiebert, 2004). The exclusion of classroom discussion and conceptual instruction in favor of procedure and practice typifies the teaching practices in mathematics in the U.S.

Likewise, Kawanaka and Stigler (1999) noted similar differences in teaching practices—observing that Japanese and German teachers ask twice as many describe/explain questions during the average instruction period than American teachers. With fewer questions asked of the students, American classrooms are typically teacher-centered and the teacher does most of the talking (Kawanaka & Stigler, 1999). In the U.S., most instruction is direct—a performance by the teacher, while students watch. This is markedly different in Japan. Inagaki, Morita, and Hatano (1999) saw that Japanese students offer their own arguments to the class for evaluation. Seldom does the Japanese instructor help the student by offering corrections or by reiterating a correct response. While Stage (2001) notes that the American teacher verbally provides the students with information, how to proceed, an introduction to the material, and identifies notation, the math student in U.S. classrooms is not expected to have an opinion or the ability to perform the task before they are shown, and once shown; the student is not asked to explain it. Moreover, meanings are not arrived at by consensus—the instructor determines all meaning (Stage, 2001). The teacher is the primary intellectual influence in the typical American classroom, rendering the student with little or no academic authority (Liberto & McCoy, 2005). The stark contrast in current teaching practices in Japan and the United States led Stevenson and Stigler (1992) to regard the Japanese view of education as more in alignment with constructivist theory, while considering the teaching style prevalent in the U.S. as reflective of the influence of behaviorist philosophy. Observing that teaching practices in the U.S. are predominately behavioristic, and acknowledging the lack of achievement resulting from the implementation of such practices, researchers are led to explore constructivist teaching methods and the resulting benefits.

Achievement through Implementing Constructivist Pedagogy

Constructivist theories reject the idea of inborn fixed intelligence in favor of becoming smart. Even so, in the U.S., the ability to understand mathematics is often seen as an indicator of innate intelligence. Schreiber (2002) suggests that children in the United States are socialized to perceive intelligence as an entity, and frequently view it as being more important than hard work. He asserts that students are often complimented on their ability to do math instead of focusing on the effort expended. In addition, comments by well meaning teachers and parents frequently include statements referring to a student as having talent, being smart, or possessing a natural ability to do math. Additionally, because of the acceptance of fixed intelligence, many American high school students believe if they are capable of solving a math problem, they will solve it in ten minutes or less and that only geniuses are capable of discovering mathematics (Schreiber, 2002).

In comparison to the U.S., Tsao (2004) notes that in Taiwan (a country that is consistently ranked high in international mathematics tests); emphasis is placed on effort in order to achieve academic success. Confucian beliefs in human malleability pervade Taiwanese culture, and are reflected in parents’ and teachers’ attitudes regarding academic ability. Because parents and teachers believe a student’s achievement can be improved with effort, they are more likely to help students and motivate them to seek assistance. In Taiwanese culture, adults reject the idea of a set innate ability since it imposes limitations for intellectual progress. Similarly, Ansalone (2004) relates that Japanese teachers assume all students possess equal capabilities. Therefore, quality work is expected from everyone. As a result, when a student makes a mistake in Japan, it is looked upon as an area where harder work and more understanding are needed. This is unlike the U.S., where making mistakes may be viewed as a sign of low mathematical ability and reason for embarrassment.

The attributes for achievement in mathematics are well studied. Although one study concludes that the greatest predictor for mathematical achievement
is intelligence (Van den Broeck & Opdenakker, 2005), the majority of studies indicate attitude as the most significant predictor of success (Gupta, Harris, & Carrier, 2006; Ma & Willms, 1999; Schwartz, 2005; Seegers, van Putten, & de Brabander, 2002). Schwartz (2005) attributes attitudes such as perseverance, tenacity, fearlessness, not being afraid to be wrong, and a willingness to commit time and effort with success in mathematics, as compensating for any lack of innate talent. Conversely, lack of possession of engaging attitudes can result in giving up and therefore failure in mathematics (Gupta et al., 2006). In a study of sixth grade students, it was observed that reducing or withdrawing effort and allowing failure was preferred rather than continuing effort and allowing the failure to be attributed to inability (Seegers et al., 2002). Consequently, students frequently decide for or against enrollment in further mathematics based on their perception of the likelihood of their success or failure. Thus attitudes toward mathematics play a dominant role in the decisions to continue on or opt out of tougher math classes. Typically, this decision is made between the eighth and ninth grade, and again between the eleventh and twelfth grade (Ma & Willms, 1999). Withdrawing one’s effort, opting out of more challenging math courses, or eliminating them altogether because of a perceived inability, limits a student’s level of mathematical achievement.

The theories a person accepts regarding intelligence have considerable impact on performance when task demands are high, as can be the case in mathematics. Students who greatly feared failure thought they were less able to accomplish a task and were less willing to invest effort in the task (Seegers et al., 2002). Furthermore, this attitude of fear and failure remained even when the tasks were altered and became less demanding. The key to reducing fear of failure, and promoting effort, asserts Dweck (2000), is to change one’s theory of intelligence from entity to incremental. Dweck explains that intelligence can be thought of as either a fixed entity or as incremental and changing. When a person chooses the entity or fixed theory, they are of the opinion that intelligence is determined at birth, and the ability to learn remains fixed. This thought process leads to a desire to out-do others in order to verify greater ability, and avoidance of failure which confirms limitations. Moreover, due to their beliefs that basic intelligence cannot be altered, regardless of the energy expended, entity theorists are prone to learned helplessness. On the other hand, if a person believes incremental theory, they are convinced of the dynamic nature of intelligence, and that learning is the process by which one becomes smart. When academic ability is viewed as pliant, effort is valued because it increases learning, and learning strategies are cultivated to aid one’s efforts (Dweck, 2000). As an attitude of malleable intelligence is developed by students and supported by teachers, students will begin to put forth effort and develop effective learning strategies that will provide them with experiences for greater success.

Belief systems, as well as feelings about success in mathematics, are flexible and can be revised, and the teacher can have a significant impact in overcoming poor attitudes (Schreiber, 2002). The consequences of the theories one chooses regarding intelligence have far-reaching effects on their present and future achievement and, in the case of educators, on their students’ present and future achievement. For this reason, Dweck (2000) advocates the “value of learning over the appearance of smartness” (p. 15) and encourages all to “appreciate challenge and effort and to use errors as routes to mastery” (p. 15). Likewise, “Educators have an opportunity to alter the negative attitudes and strengthen more positive attitudes towards mathematics and science by promoting better classroom practices and by providing positive experiences in these subjects” (Singh, Granville, & Dika, 2002, p. 323). These researchers claim that when classroom practice supports constructivist theories of developing intelligence, attitudes and therefore achievement improve.

Conclusions

The discussion regarding the enhancement of achievement in mathematics must begin with an understanding of how students learn, and lead to the implementation of teaching methods based on that knowledge. While the need for increased levels of achievement are well documented and accepted, it is not commonly understood that the similar and behavioristic teaching practices throughout the United States in the last century have greatly contributed to the current and insufficient levels of mathematical attainment. However, research confirms that when the more appropriate constructivist cognitive theory aligns with supported pedagogy, attitudes conducive to mathematical success and increased levels of achievement result (Dweck, 2000; NCTM, 2006; Stigler & Hiebert, 1999, 2004; Tsao, 2004).

The key issues concerning how and what to teach to affect higher levels of achievement lie in the understanding of the nature of mathematics. If mathematics is perceived as a set of facts and procedures, then the traditional and more behavioristic model of cognitive theory applies and teaching methods will encourage skill development...
through drill and practice to achieve desired results. However, when mathematics is seen as a complex subject requiring critical thinking skills and symbolic reasoning, the constructivist model of cognitive theory and teaching practices are relevant and require students to be provided with challenging mathematical experiences and opportunities to interpret them (Klein, 2003, 2007).

Throughout the United States and for nearly 100 years, the methods for mathematics instruction have been predominately behavioristic. And, while few educators or researchers believe this type of instruction to be effective, the traditional model still endures (Stevenson & Stigler, 1992). The resultant effect is a current deficit in mathematical understanding in students in the U.S. as evaluated internationally, nationally, and in the state of Washington. The association of current teaching practices with current mathematical capability has caused educational researchers and educators to more seriously explore the benefits connected with constructivist learning. The research cited in this paper has endorsed the implementation of constructivist theories and methods of instruction in an effort to enhance students’ mathematical comprehension.

Furthermore, the implementation of constructivist theory encompasses the idea that intelligence is malleable (Dweck, 2000). Through hard work, persistence, and the creation of successful strategies, mathematical understanding is gained (Schwartz, 2005). The notion that intelligence is fixed, and therefore, only some students are capable of understanding complex mathematical concepts while others are not, is rejected. Value is placed on effective effort and students are provided scaffolding to construct meaning and develop deeper understanding. In the process, positive attitudes, confidence, and willingness to commit time and effort can emerge. When these concepts are fostered, it is more likely students will become engaged in more meaningful mathematical study presently as well as in the future (Dweck, 2000; Ma & Willms, 1999; Singh et al., 2002).

While the literature reviewed clearly supported the adoption and implementation of constructivist theory and pedagogy, it was beyond the scope of this paper to explore recommendations regarding specific and appropriate teaching techniques and the benefits derived from their implementation. Also not included was a discussion of strategies to effectively implement constructivist teaching methods for teachers who are currently using traditional methods. This might be an area of focus for a future literature review.

Recommendations for Practice

In moving towards the goal of increased levels of achievement in mathematics, the adoption of constructivist cognitive theory, and the facilitation of appropriate matching pedagogy must take place. Furthermore, it is essential that the traditional and behavioristic cognitive theory and pedagogy that has persisted over the last 100 years of public education be counteracted (Kawanaka & Stigler, 1999; Liberto & McCoy, 2005; NCTM, 2006; Stigler & Hiebert, 1999, 2004). In order to foster an environment where the quality and type of education is child-centered and supports thoroughness of content instead of solely teacher-based, quick-paced and more superficial learning, the understanding of constructivist theory and the practice of appropriate pedagogy must occur. Additionally, this type of education must be understood and advocated by persons involved in public education—including current and preservice teachers, those who educate teachers and preservice teachers, and those who develop instructional materials and curriculum, as well as administrators at all levels, policy makers, and parents (NCTM, 2006). Researchers cited throughout the literature review believe the resultant effect of the implementation of progressive pedagogy will be that students will gain the best opportunities to emerge from their classrooms with greater mathematical competence, comprehension, skill, positive and engaging attitudes, and a desire to further their mathematical learning. To this end, the following four practices are recommended for the implementation of progressive pedagogy based on constructivist cognitive theory:

1. Facilitate and support ongoing education regarding progressive education theories and practice. Stigler and Hiebert (1999) noted that although most teachers of mathematics believed their practices reflected progressive ideology and pedagogy, they still routinely provided students with answers and afforded few occasions for students to reason and justify their conclusions. Progressive teaching consists of more than presenting problems to solve and working in groups (Malloy, 2004). Educators, administrators, curriculum developers, providers of materials, policy makers, and parents need to have opportunities to learn and be reminded of the philosophy, requirements, and benefits of this less prevalent type of education.

2. Work to counteract misunderstandings regarding progressive education. Many educators and parents hold misconceptions that this type of education is too time consuming, and while the
children may enjoy the activities, they produce little understanding of the material (Klein, 2007). Furthermore, some misunderstand the process involved in discovery and group work as allowing children to do as they please while discovering what they may (Klahr & Nigam, 2004). Teachers, administrators, and parents need to be aware of such misconceptions and work to correct them as opportunities arise.

3. Promote the idea that mathematics is rich in conceptual understanding that encompasses more than sets of procedures requiring drill and practice. How mathematics is defined relates directly to how it is best taught. If individuals perceive mathematics primarily as procedural sets requiring memorization, then drill and practice is appropriate (Klein, 2003). However, when it is understood that mathematics is conceptual, builds problem-solving skills, and contains sophisticated ideas beyond facts and formulas, time and effort is expended on exploration and deeper comprehension of material (Stage, 2001).

4. Reject the ideas and practices which infer that mathematics is an indicator of innate intelligence. The belief that standardized mathematics testing can indicate one’s intellect and thus reveal a student’s “gifted” status, qualify that student for more advanced mathematics, and predict a greater probability of academic success needs to be eliminated (Schreiber, 2002). Instead of embracing beliefs of innate fixed intelligence, hard work must be encouraged and valued, and effort must be emphasized as a pathway to mathematical success. Furthermore, errors should not be feared and scorned, but evaluated as opportunities to further students’ understanding and identify areas that require more work (Dweck, 2000; Tsao, 2004). By eliminating the perception that participation in mathematics is reserved for those of the highest intelligence, attitudes of engagement can be fostered, and students will choose to enroll in mathematics when they have the choice to opt out (Gupta et al., 2006; Ma & Willms, 1999).

The adoption of constructivist theory and the implementation of supporting pedagogy have the capacity to revitalize the way mathematics is perceived, as well as how it is taught. Greater achievement is possible through constructivist theory and supporting pedagogy when more individuals involved in education support its proper implementation, which in turn supports teaching mathematics conceptually. In addition, attitudes towards mathematics are improved and students’ desire to participate in mathematics enhanced by progressive methods.

References


Globalization and Citizenship Education in the U.S. and Abroad
by Jerad Austin Koepp

This report is a comparative education study of four countries: England, the United States, Denmark, and Germany. Differing educational practices in the countries are compared with results from the 2001 International Educational Association Civic Education Study. This comparative study finds several teaching practices that are common among all of the nations. Practices are recommended based on conjunction with study results and the civic practices’ ability to prepare students for civic participation in a globalized classroom among students in United States schools. The combination of reviewed practices, it is concluded, creates a comprehensive and consistent pedagogy to prepare students for the expectations of citizenship in a globalized world.

Introduction

The increasingly globalized marketplace is dramatically increasing global migration and is presenting new challenges to states and classrooms in the United States and abroad. As classrooms increase in cultural diversity, new challenges are being presented to training these diverse students for the challenges, opportunities, and expectations of full citizenship. Key questions now exist such as how does one teach citizenship education and avoid forced assimilation, what pedagogical methods are available, and which countries can provide helpful collaboration (Hahn, 1999)? These issues will be addressed in this review.

What does citizenship education mean today? Citizenship education operates under the assumption that a student’s citizen identity needs to be nurtured and developed to be fully realized. Educators are vested with incorporating the necessary curricula to instruct students to be the kind of citizens “required by the norms and ideals of the overarching political community” (Parker, 2001, p. 6).

Over the course of the last thirty years, numerous studies and large population sample statistics have provided a library of research on the topic of citizenship education. Schools from the industrialized nations have participated in on-going comparative surveys on citizenship skills, content, and knowledge that illustrate consistent implications for student proficiency in the area of citizenship education.

Over the course of those same thirty years a handful of leading scholars have emerged that have lead the research and instruction of citizenship education. The thorough works of University of Washington professors Walter C. Parker and James A. Banks will provide details from curriculum research in the fields of citizenship education. Professors Parker and Banks have extensively researched citizenship curricula that incorporate the complex multi-dimensional global citizen. In addition to the curricula study, the survey and statistical research by Carole Hahn and Judith Tourney-Purta will be used. Hahn and Tourney-Purta are professors of comparative education at Emory University and have led the research for the largest survey of citizenship education with the International Education Association’s (IEA) Civic Education Survey (2001).

While the breadth of available research on citizenship education is great, I have chosen the work of these leading scholars due to consistency in method and the extent of their work with government education agencies around the world. While there are others that present similar views, their research is not as far-reaching or as peer-reviewed.

Despite the breadth of research and general agreement on the findings, little has been published recently that incorporates the academic research into a cross-cultural framework for citizenship education programs. Studies from leading scholars in the area of citizenship education as well as survey results from the International Education Association Civic Education Study (2001) will be presented thematically in this review by culture, content, classroom environment, and pedagogy and will be studied in this order. An equitable examination of the nations researched by this paper will present clear and common themes that correlate to actual academic results from international surveys.

This correlation of pedagogies for citizenship education seeks to provide educators the tools to prepare students in the globalized classroom for the opportunities and expectations of being an active and informed citizen. Compiling and interpreting the data in this manner is only the beginning of the research needed to homogenize citizenship education pedagogy nationally and internationally to prepare students for global citizenship.

In compiling and interpreting the current data on citizenship education some important areas had to be left for further study. Under the criteria set by the International Education Association, or IEA, neither traditionally “poor” nor ethnically diverse schools did not participate in the cross-national survey.
Additionally, only the United States and European countries were used in this study. While the information provided by studies in Asian countries would deepen our understanding of the effects of citizenship education on social and cultural formation, the absence of consistency in study method lends these nations to future study. Finally, it is important to note that while ultimately the state controls the academic requirements of citizenship education, it is not implied in this research that schools are not dynamic institutions for democracies in themselves (Wong & Apple, 2002).

Review of Research

Extensive surveys on the results of citizenship education have been ongoing since the early nineteen seventies. Since then, the International Education Association (IEA) has been surveying students throughout the world in the areas of civic skills, content, and knowledge among others. The leading scholars in citizenship education remain associated with the ongoing IEA project such as Carole Hahn and Judith Tourney-Purta. Leaders in teacher and citizenship education such as Walter Parker and James Banks, both of the University of Washington, continue to create and critique global and multicultural citizenship education curricula.

While the breadth and depth of the statistics of citizenship education are great, an asymmetry exists in curriculum development. As an example, the United States mandates neither a national curriculum nor requirements for citizenship education. Additional problems have arisen “amid the perennial updating” of individual school districts attempting to keep pace with the academic relevance, perspective, and reach of citizenship education (Parker, Ninomiya, & Cogan, 1999, p. 119).

Ongoing comparative curriculum study has been limited to only a few scholars and further study is required to expose the similarities in citizenship education throughout the world. This necessary information will aid in the creation of a framework for citizenship education curricula that can be both adaptable and relevant.

Since the emergence of the nation-state, rulers have had to struggle to build national identity, preempt divisive factions, and earn the support of the people. Originally intended to transmit legal authority, citizenship education has often been mistaken as a dependent variable in the role of state formation (Wong & Apple, 2002, p. 182). The evolution of global trade has created a fluctuating wave of immigrant workers and exhibited citizenship education’s varying dynamic in incorporating these new citizens.

The question behind globalization and citizenship education is not whether globalization exists in the classroom, but rather what are the consequences of globalization on the classroom (Osler & Vincent, 2002)? In education, we must examine how we deal with the effect of globalization on citizenship. How are we trying to incorporate this in school curriculum?

In order to create a comprehensive view of globalization and citizenship, the countries of the United States, Denmark, Germany, and England will be analyzed. All four countries have either participated in the 30-year study by the International Association for the Evaluation of Educational Achievement (IEA), or undergone extensive independent historical and educational study by leading educational scholars. The use of cross-national evaluation may be adapted to effectively develop democratic ideas and skills in U.S. students (Hahn, 2001, p. 18).

The nations used for evaluation will be analyzed using content, environment, and pedagogy. Analyzing these differences will also tell us not only the differences in pedagogy but also what kind of citizen the countries are trying to develop (Parker, 1984, p. 6). Before continuing further it is important to define what citizenship education is and what it means to the countries in question.

The United States: Students are expected to learn political institutions, rights and responsibilities, national identity, social cohesion and diversity.

Germany: Internationally the most similar to the United States, German students share numerous attributes and ideas such as class structure and content (although Euro-centric rather than U.S.-centric).

Denmark: Until recently, citizenship education was mandated by law. Students are expected to study and comprehend controversial international issues, participate in in-depth group projects, and in student councils. Teachers are expected to teach in a pluralistic way. (Hahn, 1999, p. 234).

England: Citizenship education in England is not presented as a definitive class but rather as a mode of cultural transmission that students are expected to infer through socialization. In the words of some English teachers, citizenship education is caught not taught.

Rather than debating pedagogy, this research will focus on the intended result of citizenship education, namely that each globally-educated citizen is “an informed person, skilled in the process of a free
society, who is committed to democratic values and is able, and feels obliged, to participate in social political, and economic processes” (Parker, 1991, p 3).

The Controversy

Cultural critics of the IEA study argue that the survey questions do not address “the students’ understanding of racial, linguistic, and cultural diversity within the global context, and also the necessity of inclusive perspectives among students with different backgrounds was also left out” (p. 40). These critiques are based upon the assumption that citizenship education is dependent on the demands of state formation. (Apple & Wong, 2002, p. 182). However, in the world of post-national or global citizenship, every person has the right and duty of participation in public life regardless of historical or cultural ties to the community (Soysal, 1994, p. 3).

Others criticize citizenship education itself as either a form of “reactionary nativism” in order to preserve cultural hegemony, or benignly as “segmented assimilation” (Jo, 2004, pp. 35, 37). As the studies will show, these views are a U.S. critique, as nations such as Singapore and Hong Kong operate multi-lingually under Malay, Chinese, and Tamil languages (Wong & Apple, 2002, p. 189). To them, citizenship education creates the national identity necessary for their global economic success rather than cultural oppression.

Measurement

The research is based on the results from the 1999 IEA study. The IEA is an international survey of 14 year-olds from 28 countries.

The questionnaire consisted of 38 cognitive items: 25 civic content items, 13 civic skills items, 52 concepts items, 70 attitude items, and 24 action items. Students answered general background questions to identify sex, race/ethnicity, and socioeconomic background. In addition a school questionnaire and a teacher questionnaire were administered (U.S. Department of Education, 2001, p. 7)

Further research has been based on the work of Carole Hahn’s comparative analysis of 14-19 year-old secondary students in Europe. Hahn’s methodology included questionnaires administered in 1985-86 and 1993-94 to measure secondary students’ political attitudes at 50 schools located in five nations. Questionnaires were accompanied by direct observations, field diaries, transcripts, documents, and student interviews (Hahn, 1999, p. 235).

This study will organize the information from the studies under the categories of culture, content, classroom environment, and pedagogy in order to provide a brief comparative overview of the nations’ curricula. It is important to note that of the participating nations, none of the schools surveyed served poor, low-income, or predominately minorities students.

The United States

Of all the nations studied, the United States utilizes the greatest number of instructional methods. This is in part because citizenship education is dependent upon individual school district requirements and decisions. For example, there are no requirements for students to take civics courses in many school districts. Additionally, classroom instruction follows a rather authoritarian instructional manner. Researchers have regularly reported that U.S. social studies instruction is “often dull and dominated by teacher lecture and student recitation” (Hahn, 1999, p. 234). Other reviewers of citizenship education such as Cotton (1996) cited the following:

- A lack of meaningful content
- Irrelevance
- Lack of focus on citizen rights
- Avoidance of controversial topics
- Lack of attention to global issues
- Limited and shallow textbook content
- Text-bound instruction
- Focus on teacher control and student obedience
- Inappropriate assessment

The IEA survey reveals some of the cultural ideas of the eleventh-graders surveyed. Only 37 percent of students said that diversity is a source of cultural strength, and 44.4 percent of ninth-graders agreed “that we should stop outsiders from influencing U.S. traditions and culture” (U.S. Department of Education, 2001, pp. 75-76). The light at the end of the tunnel, though, is that roughly ninety percent have positive attitudes towards immigrants and immigrant rights (U.S. Department of Education, 2001, p. 80).

In districts that do not require a citizenship education course, it is believed that citizenship is gleaned from numerous civics related courses. In the United States civics content often falls under the following categories: geography, history, economics, government, anthropology, and sociology (Parker, 1984, p. 7). While citizenship is often expected to be socialized into the student as is believed in English schools, U.S. civics courses often lack cross-discipline instructional methods.
The learning environment in U.S. schools shows many positive survey trends. Students in U.S. schools regularly express that they feel comfortable discussing controversial issues. As one student explained to Hahn (1999), “[w]e talk about the news and express our opinions, even if our opinion is different from everyone else” (p. 234).

Survey results show that political pressure for U.S. teachers to teach less controversial issues differ from the political environments of the other nations studied. Results indicate that U.S. teachers are reluctant to engage students in discussions on controversial issues such as evolution, race, and abortion. As one student survey response illustrated, “[i]t’s basically stick to the subject” (Hahn, 1999, p. 235). Additionally, “several [teachers] said that in their particular community there were some [topics] such as evolution and race relations that they would handle with particular care and sensitivity” (p. 235).

The source of greatest disagreement in U.S. social studies education is not its importance but its methodology. Teaching methods often involve textbook based teacher recitation with student responses, and multiple choice tests at the end of textbook chapters. According to the results from the IEA survey, 89 percent of ninth-grade students reported reading from textbooks, 88 percent filled out worksheets rather than utilizing engaging activities such as meeting with leaders or writing letters to public officials (Jo, 2004, p. 40).

However, U.S. teachers exhibit the widest range of instructional methods. Students have often been studied utilizing computers, playing learning games, or assigned term papers, or independent research projects (Hahn, 1999, p. 234). In reality, “little is known about the school and classroom context in which civic education happens in the United States or the status of civic education as an explicit goal for schools” (U.S. Department of Education, 2001, p. 25).

The IEA asserts that the extent of civic knowledge of U.S. students is above the international average, and in no other country are U.S. students significantly outperformed. In the civic content criteria, U.S. scores did not differ from the international mean and were out performed by only six countries. Regarding civic skills, students perform significantly higher than the international mean and higher than every other nation (U.S. Department of Education, 2001). Despite these findings, little is known about the societal or school level characteristics that influence civic achievement results. In addition to minimal data on school demographics, little is known about student dispositions regarding classes related to citizenship education or their perceptions as to its applicability in the globalized world.

**Germany**

Of the IEA participating nations, Germany consistently exhibits the greatest number of similarities with the United States in terms of content and pedagogy. In Germany, courses are made to teach secondary students about the political arena and prepare them for deliberative democratic involvement. As a German civic education student commented on what a typical day in class was like, “[s]ame as today, read from a text and talk” (Hahn, 1999, p. 235).

The citizenship content is more centralized in German schools and regularly covers the following topics: social behavior, political parties, law, Weimar Republic, Nazism, Germany’s relations with Eastern Europe, the West and third world, theories of democracy, political participation, economic problems, the parliamentary system, legal systems, minorities, and political perspective of different newspapers (Hahn, 1999, p. 235).

Discussions of previously listed controversial issues are conducted in a classroom environment that is serious but relaxed, as teachers wear jeans and sneakers. Teachers typically lead instruction and discussion of controversial topics. Also using this less democratic model, German teachers present students with a public policy question and have them take sides and justify their positions. Students report utilizing this skill in several of their other classes.

German teachers regularly have students reorganize desks to sit in circles or a horseshoe to address the teacher or their peers. Teachers also often ask textbook based questions or utilized photocopied articles. While the students raise their hands to share, the teachers write key words on the board. Teachers of students under the age of 16 often take into account their maturity level, while teachers of students older than 16 feel a great deal of pressure to prepare students for a high stakes German examination that determines university entrance (Hahn, 1999, p. 235).

**Denmark**

Of all the countries studied, Denmark’s survey results consistently reflect the most democratically organized classrooms. Previously, the law mandated that schools should model democracy with weekly class meetings. The law was overturned because it was seen as not democratic enough. Most Danish students stay with their teacher from the ages of 6 to 16 and participate regularly in democratic class meetings to resolve problems and decide which topics to study. Additionally, regardless of the
class, and reply to their instructor using “miss” or “sir” (Hahn, 2001, p. 237).

The idea of citizenship education through cultural transmission is not entirely unfounded. Using survey research, one of the chief predictive variables of civic knowledge, attitudes, and behaviors has been the number of years of schooling (Parker, 2001, p. 8). With this model, the English have included citizenship education as a cross-curricular theme rather than an independent class.

Controversial issues are covered with guest speakers addressing the student body. One week a guest speaker will address the pros of a topic, and the following week another speaker will address the cons. For students wishing to pursue civic education, their primary opportunity is through debating societies and Amnesty International clubs (Hahn, 2001, p. 237).

Conclusions

Results from the IEA research and the comparative analysis resulted in the following:

- Depth of understanding remains a problem.
- Students with the most civic knowledge are most likely to participate in civic activity.
- Schools that model democratic environments are the most successful in promoting civic knowledge and engagement.

Summary

The clear implication of the research on the state of citizenship education curriculum development is the importance of relevance and fluidity (Torney-Purta, Lehmann, Oswald & Schulz, 1999, p.2). Teachers who utilize classroom democracy can develop relevant material and adapt to the changes of the global classroom. Globalization itself is a complex, multidimensional phenomenon. Globalization’s effects involve different flows, tensions, and conflicts, and require a curricular response to capture those dynamics to ensure the future of citizenship (Torres, 2002, p. 365). When the findings of the studies are compiled a correlation emerges between the method of instruction and the desired outcome of creating the well-informed, global-citizen.

Conclusions

Educators today cannot escape the effects of globalization in the classroom. Classrooms have greatly diversified and so have the demands and challenges facing students about to enter the adult world. Regardless of a student’s origin, society
demands of him that be educated and prepared for the rights, duties, and expectations of civic society (Parker, 2001, p. 6); civic education has a key role to play in this preparation. The ongoing research of the IEA Civic Education Study, which provided the comparative information for this review, has provided a great breadth of studies and statistics from which to learn further about how best to provide these educational aims.

United States based researchers have led many comparative research studies in the area of civic education and many more are still underway. However, as this review has shown, little has been done in negotiating the research to create a curriculum that can prepare students in the global classroom for the demands of the globalized world. However, the growing cultural diversity is creating unavoidable demands for pedagogical change.

Following the tradition of comparative education studies, cumulative research is discovering relevant and outstanding results for students in the global classroom. In particular, the cumulative research of comparative studies show that students in the globalized classroom show increased successes in content, knowledge, and skills within curriculum that allows them to maintain their cultural diversity (Soysal, 1994, p. 3). The tools provided in effective citizenship education can transfer to a student’s citizenship in numerous racial, cultural, and government groups without leading to common concerns regarding cultural assimilation (Banks, 1997). Student councils, as a method, are not limited to student government but accompany the new interdisciplinary approaches to classroom studies. Students can practice speaking, leadership, and cooperation skills towards common goals facing the students (Constitutional Rights Foundation, 2000).

It is notable that many of the implications from comparative education research lead to a common conclusion that globalized citizenship education will require much more student action than ever before. The research shows that the countries with the highest level of student participation in service programs also spend the most time discussing international issues with teachers and peers. This too is a key area to advance the curricula involved in citizenship education. Engaging students in learning about and discussing international issues will allow students to reflect on the diversity within their classrooms as well as prepare them to cooperate in the growing global community (Dilworth, 2003).

While the implications of this research are focused on creating more in-depth interactive learning opportunities for students, the research does not diminish the challenges of perennially updating material (Parker, 2001; Parker, Ninomiya, & Cogan, 1999). Educators will still have to be proactive in securing up-to-date and relevant course material to accompany the new interdisciplinary approaches to civic education.

Further Study

Unfortunately, research is still lacking in the areas of citizenship education and multidimensional citizenship. Multidimensional citizenship is the understanding that students in a globalized classroom often share more than one identity and must negotiate among the expectations and demands of those identities. An infusion of more information in this area of research could increase the diversity in the studies that remain primarily based on non-poverty U.S. and European schools.

While the research in civic education continues, nearly all of the studies focus on influencing student action rather than traditionally passive textbook and essay work. Nations such as Denmark and Germany are examples of the few nations that are proactive in providing students with class credit and time to participate in student councils and service learning opportunities (Hahn, 1999, p. 234). While the United
States still does not have national mandates to require citizenship education, educators will have to be the leaders to provide these unique and progressive learning opportunities for students to better meet society’s expectations in this domain.

The intended outcome of this cumulative approach is not simply higher international scores but a sense of student empowerment and preparation for a global civic life.

**Recommendations for Practice**

The comparative educational study of the United States, Germany, Denmark and England reveal each country’s successful pedagogies in teaching citizenship education in the globalized classroom. Countries such as the United States shared pedagogy found in Germany while another country such as Denmark uses its own pedagogy for globalized citizenship. The study has illuminated six key practices or skills that influenced the highest scores in civic content, skills, and knowledge as tabulated from the International Educational Association’s 2001 Civic Education Survey. The six practices or skills addressed are multidimensional citizenship, service education, deliberative thinking, international study, guest speakers, and student councils.

*Multidimensional citizenship:* As Parker, Ninomiya, and Cogan (1999) specify, it incorporates the personal, social, spatial, and temporal aspects of citizen identity that they argue are integral in preparing students for the demands of 21st century citizen (p. 127). Multi-dimensional citizenship also acknowledges that students identify themselves as citizens in numerous ethnic, racial, class, and language communities.

The degree that global citizenship is understood and embraced, is the degree to which multi-dimensional students will see themselves as citizens (Banks, 2004, p. 112). Utilizing the citizenship education as an agent for social change, disadvantaged children of urban centers or global migration will be able to look forward from the disadvantage of birth or circumstance (Banks, 1971, p. 134).

*Service education:* The IEA-participating nations in which students performed the best in civic skills were those that taught students the value of, or required to participate in, some form of service project. As results from the IEA (2001, p. 90) study show, fewer than one-third of United States students are expected to ever engage in either joining a political party (29.1%), write letters to the editor (27.9%), or be a candidate for a local office (18.2%).

According to LeSourd (1997), in order to create a service ethic in a pluralistic society, educators must have the power to teach students to recognize the duties and responsibilities of citizenship, extend moral considerations, and understand the interests of others (p. 158). In order to provide successful service education, students must have the opportunity to test new skills, develop relationships with both peers and adults, be permitted to make real decisions within clearly understood limits, have the opportunity to speak and be heard, and discover that young people can make a difference (Schine, 1997, p. 171).

Service education also provides opportunities to engage marginalized students in community projects. By training students to be social stewards, they have the ability to become “doers” rather than the “done to,” as described by Joan Schine (1997, p. 170). In other words, direct participation provides the best chance to motivate students for lifelong civic participation (Battistoni, 1997, p. 155; Constitutional Rights Foundation, 2000, p. 3).

*Deliberative thinking:* The results of globalized curriculum will be students with some of the knowledge, habits, and moral vision needed to deliberate creatively and democratically on societal problems (Parker, 1991, p. 13). The National Council for Social Studies (1979) emphasized in their curriculum guidelines that “knowledge without action is meaningless, and action without knowledge and deliberation is irresponsible” (Hahn, 2001, p. 19). Each student should have the moral duty to justify the values he or she advocates in class, especially if they affect the lives of classmates or the community. Mastery of the above skills will then provide the potential for students to exert more influence in their community (Newmann, 1975, p. 81).

*International studies:* IEA results for the United States show that only about half of students read about international events in newspapers, and less than twenty percent of male students, and fewer than fifteen percent of female students, discuss international issues with peers. Survey results show that the percentage of time spent discussing international issues with teachers is 52 percent (U.S. Department of Education, 2001, pp. 86-87). However, because in the United States teachers place the highest priority on teaching according to the state testing standards (Torney-Purta, Barber & Richardson, 2005, p. 5), it is important to require additional classes such as international studies in order to prepare global citizens.

*Guest speakers:* Studies have shown that the use of guest speakers serves different purposes for civic
education around the world. In some countries, guest speakers reinforce civics content or moral norms, as in England. In others, such as Denmark and Germany, guest speakers are used as a means to extend and reclaim community, and challenge the assumptions of shared subjectivity (Knight-Abowitz, 1999, p. 145). By consistently incorporating the findings of this research into civic education, students learn the roles, responsibilities, and expectations of their community.

Student councils: According to the IEA, schools that operate under democratic ideals produce more democratically-minded students. As evidenced by the Danish curricular and non-curricular model of democracy, political participation was powerfully affected by the all the above programs. As social studies theorist, Walter Parker (2001) explains:

Widespread membership in voluntary associations is one of the keys to making a democracy work, for these associations compose a social infrastructure – a civil society – of more- or-less ‘free spaces’ where social life proceeds in a sweep of directions, nongovernmental solidarities are nurtured, and criticism of mainstream norms and practices can flourish. (p. 7)

By becoming a copartner in the school or larger community, the student shares in the same sense of accomplishment as the others participating and can share similar ideas and emotions (Dewey, 1916/1997, p. 13). One can derive a model of a sense of the larger community from Denmark’s example rather than from U.S. school clubs within the school systems. As U.S. school clubs often rarely reflect the larger realities of the democratic community, a “bookish, pseudo-intellectual spirit” is substituted for a social spirit (Dewey, 1916/1997, p. 38).

Focusing on these six practices or skills will promote a desirable, more effective instructional consistency. While Civic Education Study results were strong for the United States, continuing with limitless variety in practice should be avoided. In contrast, consistency should be encouraged with the pedagogical approached practiced in such countries as Denmark. Utilizing these six practices or skills as a guide also provides a nation-wide consistency that encourages all students to have similar familiarity with the expectations of global citizenship and the practices and skills necessary to maximize their roles.

References


Parental Involvement and Student Achievement: Effects Across Racial/Ethnic Groups
by Richard Lasso

This article examines the correlation between parental involvement and three variables of student achievement: standardized tests, educational outcomes, and grade point average (GPA). While the vast majority of the research on this topic has examined European-American families, this review focuses on how parental involvement correlates with student achievement across five racial/ethnic groups. This includes African-American, Latino/Hispanic, Asian-American, Native American, and European-American students and their families. The article concludes that the correlation between parental involvement and student achievement is influenced by both how student achievement is measured and how parents choose to be involved. Finally, this article provides recommendations for how schools can further promote parental involvement across racial/ethnic groups.

Introduction

Among the important concerns in public education today is the need to address the achievement gap between students of color and White students. The solutions offered to close this gap are numerous and range from structural reform to individual responsibility. The signing of the No Child Left Behind Act, with one of its four main pillars being “more choices for parents,” alludes to one of these solutions, parental involvement (U.S. Department of Education, 2002). For most students, the first teachers they have are their parents or family members. Whether teaching their children to walk or answering the seemingly infinite number of questions of the curious child, parents are actively involved in how their children learn and develop. It should come as no surprise, then, that parental involvement is generally accepted to be an educational input that promotes student achievement (Yan & Lin, 2005).

The majority of research which supports this positive correlation between parental involvement and student achievement, however, centers on middle-class, European-American families (Anguiano, 2004; Chavkin & Williams, 1993). This paper addresses this gap in the literature by comparing and contrasting the impact parental involvement has on student achievement across racial/ethnic groups. Since the literature examining this relationship across racial/ethnic groups is limited, this review will seek to compile the studies that address the role of race and ethnicity and analyze how these variables affect the correlation between parental involvement and student achievement.

Before discussing this correlation, however, it is important to define the term “parental involvement.” Parental involvement is a broad and vague term that can encompass a variety of behaviors (Feuerstein, 2000). For example, it has been defined in specific terms (e.g. parents helping students with their homework) but also conceptualized into categories such as, “parent information networks” (Yang & Lin, 2005). For the purposes of this paper, parental involvement is defined according to Epstein’s (1995) typology because it is one of the most cited frameworks from which to discuss this topic. The typology includes six categorizations: (a) parenting practices at home; (b) communication between school and home; (c) volunteering in the school; (d) parents participation with student learning at home; (e) decision making (parents taking leadership positions within the schools); and (f) collaborating with community. In addition, the term “student achievement,” or academic achievement, refers to either test scores on standardized tests, educational outcomes (i.e. high school completion), or grade point average.

The main limitations of this paper are three-fold. First, the majority of the studies used in this review utilize data from the National Education Longitudinal Study (NELS) of 1988. Since the data is almost twenty years old, the results from the studies under review might not be as pertinent to the current generation of students and families. Second, the specific definitions used for parental involvement and academic achievement restricted the number of studies that were reviewed. Using a different definition for “parental involvement” or different methods of measuring “academic achievement” would have expanded the literature base and, possibly, resulted in different conclusions. Finally, the racial/ethnic categorizations used in the review (i.e. Black, Asian, Latino, Native American, and European American) could overshadow sub-group differences in how parental involvement correlates with student achievement. For example, Venezuelan students might have benefited more from parental involvement than Mexican students yet both are classified as “Latino/Hispanic.” Using such broad
This literature review begins with a brief historical overview of parental involvement within a social, cultural, and political context. Next is a discussion of the theories and data that guide the research studies under review. The main body of the paper is a literature review that examines the correlation between parental involvement and three variables of student achievement: standardized test scores, educational outcomes, and student GPA. The paper concludes with some recommendations for how schools can further promote parental involvement across racial/ethnic groups.

**Brief Historical Overview within a Social, Cultural, and Political Context**

Before the establishment of public schools in the United States, the role of socializing children fell squarely on the shoulders of parents. Raising children meant parents had to instill values and impart knowledge on their children. Post-Revolutionary America, however, saw a shift in this responsibility. Slowly, the socializing and teaching of children went from homes and parents to schools and teachers, respectively (Spring, 2004). To be sure, parents still had an influential role in their children’s lives, but the goal of making children educated, productive members of society became the job of schools. As industrialization and urbanization swept the U.S. in the nineteenth-century, parental involvement in their children’s education continued to decline (Chavkin, 1993). It was not until the 1920s that parents reclaimed their direct involvement with the education of their children. Even so, this form of parental involvement consisted mostly of parents being classroom volunteers, PTA members, and food providers for special school events (Zellman & Waterman, 1998).

The 1980s ushered in the contemporary era of parental involvement as well as a renewed interest by the federal government in family-school relationships. Federal intervention came mostly through mandates for parental involvement, with programs like Head Start and laws like the Elementary and Secondary Education Act (Chavkin, 1993). The continued concern with parental involvement persisted into the twenty-first century with the No Child Left Behind (NCLB) Act of 2002. One of the four “historic educational reforms” that pillared the foundation of NCLB was “more choices for parents.” This section of the law required schools to have parental involvement policies, provide school report cards, and allow parents to make choices about what schools their children attend (U.S. Department of Education, 2002). It is within this context that researchers began to examine the role of families within students’ education.

Three main factors propelled researchers to explore the relationship between parental involvement and student achievement. First, researchers wanted to confirm, empirically, whether the long held perception that family involvement correlated positively with student achievement indeed had any merit (Ryan & Adams, 1995). They also wanted to examine if, as previously thought, parental involvement was in fact the most accurate predictor of student success (Schargel & Smink, 2001). Second, there was growing concern that changes in the structure and functioning of U.S. families, which began to occur in the 1960s, would affect the positive upbringing of children. Specifically, these changes included the reduction of extended families, the rise of single-parent families, and increases in the number of women entering the workforce (Plant & King, 1995). As these changes were occurring, researchers noticed a paralleling trend: lower educational aspirations, lower scores on standardized tests, and lower graduation rates (Orfield, 2004). Finally, researchers turned to examining parental involvement because of the perception that families were an “alterable variable” (Lehr, Clapper, & Thurlow, 2005, p. 84). In other words, researchers believed that parenting styles, levels of involvement, educational/motivational support for learning, etc. were all variables subject to external influence. Researchers thought that if schools could encourage parents to become active participants in their children’s education, student achievement would increase.

However, the interest in the relationship between parental involvement and student achievement extended beyond the realm of educational research and became a central focus of public policy (Desimone, 1999). This occurred primarily because policy makers saw parental involvement as a form of social investment where the benefits outweighed the costs. In addition, they also saw parental involvement as a reflection of the American ethos that a child’s well-being was the primary responsibility of the parents (Desimone, 1999). In short, parental involvement has become a major target for improving student achievement because, “American education has ‘rediscovered’ parental involvement as the latest panacea to improve student learning” (Keith & Keith, 1993, p. 474).

**Theoretical Frameworks and Data**

The main theoretical framework used to both explain and justify the research on parental
involvement has come from the idea of social capital. The main concept behind social capital is that when people interact with one another certain aspects of that interaction (e.g., trust) provide the participants with capital (i.e., resources) that facilitate individual or collective action (Coleman, 1990). In relation to parental involvement and student achievement, this means that when parents interact with their children, they convey certain values or ideas that act as resources which children can use to improve their academic achievement (Coleman, 1988). For example, when parents help children with their homework they might convey a number of things such as the value they place on education, their interest in their children’s well-being, or their educational expectations of their children. All of these are motivational tools that the student could use to attain higher achievement.

When discussing the effects of parental involvement on student achievement within racial/ethnic minority groups or low-income families, researchers have used another theoretical framework, cultural capital, to complement the idea of social capital. Cultural capital refers to the idea that the culture a person is raised in influences how he/she communicates, how he/she responds to authority, and the values he/she holds (Lareau, 1987). Likewise, the institutions that people interact with also have a certain culture. In U.S. schools, for example, that culture has usually consisted of Anglo-Saxon, Protestant, and middle-class values (Spring, 2004). Consequently, if one’s culture is in line with that of the schools, then his or her culture acts as a form of capital i.e. it facilitates the success of students or the participation of parents (Lareau, 1987). In regards to parental involvement, researchers have used cultural capital to examine if differences in how parental involvement correlates with student achievement exist across racial/ethnic groups.

Finally, the majority of the studies examined in this literature review use data from the National Education Longitudinal Study of 1988 (NELS-1988). The U.S. Department of Education’s National Center for Education Statistics (NCES) conducted the NELS-1988 to attain a nationally representative sample of eighth grade students that explores a wide range of topics including achievement test scores, self-reported grades, and graduation/dropout rates. It included almost 25,000 students from 1,052 public and private schools (Keith & Keith, 1993).

**Literature Review**

Before one can begin to understand how parental involvement correlates with student achievement, it is important to understand why researchers believe this relationship exists. Two mechanisms of parental influence, modeling and reinforcement, demonstrate why parental involvement can have a positive effect on student achievement (Hoover-Dempsey & Sandler, 1995). Modeling refers to parental behavior that demonstrates to students the value of school through time commitment and parental interest in student learning activities. This can have a positive effect on student achievement because students perceive parental interest as powerful and encouraging, and thus want to imitate those behaviors (Hoover-Dempsey & Sandler, 1995). Reinforcement occurs when parents give their students attention, verbal praise, or rewards for their success in school. By reinforcing student behavior, parents help promote and sustain positive behaviors that are important to student success (Hoover-Dempsey & Sandler, 1995).

That said, the remainder of this review focuses on how parental involvement correlates with three levels of student achievement: standardized tests, educational outcomes, and grade point average (GPA). In particular, it examines how well the concept of cultural capital explains differences in the correlation between parental involvement and student achievement across racial/ethnic groups.

**Correlations with Standardized Test Scores**

An important component of the accountability movement that began in the 1970s was the standardized test (Spring, 2004). The NCLB Act, which requires mandatory testing of students at various grade levels, symbolizes the increasing importance of these tests as measures of academic achievement. As a result, one of the major areas of study regarding the effect parental involvement has on student achievement centers on standardized test scores.

Examining the standardized tests scores of eighth grade students from the National Education Longitudinal Study of 1988 (NELS-1988) demonstrates that, overall, parental involvement has a “powerful effect” on reading, mathematics, science, and social studies (geography, civics, and history) scores (Keith & Keith, 1993, p. 485). Comparing the exams individually, however, shows that these effects, as well as the strength of the effects, vary across tests. For example, some researchers (Desimone, 1999; Ho Sui-Chu & Willms, 1996) posit that students’ reading and math scores benefited from parental involvement. However, Keith and Keith (1993) found that the impact on reading scores is not as significant as some researchers claim. Instead, they found that parental involvement correlates with students’ social studies scores much more than other...
tests. Still, others (Hong & Ho, 2005) argue that parental involvement equally correlates with mathematics, science, and reading test scores. All these researchers used the same data from the NELS-1988, yet produced different findings about how parental involvement correlated with test scores. To be sure, some of the researchers chose to examine only certain tests scores, whereas others examined all four. Nevertheless, the inconsistent conclusions indicate some other factors are involved.

As indicated earlier, one reason for the inconsistent findings might result from differences in defining parental involvement. For example, although parental involvement has been shown to positively influence test scores in all four major areas, Keith and Keith (1993) found this to have a strong correlation only when parents monitored their children’s homework time. On the other hand, Ho Sui-Chu and Willms (1996) state that parental involvement in the form of parents helping students with school planning (e.g. course selection) and having discussions with them about school activities are what correlated with student test scores. In contrast, other researchers, most notably Trivette and Anderson (1995), posit that home structure in the form of rules and regulating of homework did not correlate positively with student achievement and, in fact, had a slight negative effect on student test scores. They argue, instead, that parental educational aspirations have the strongest effect on student test scores. Thus, despite using the same data source, the NELS-1988, different researchers have found an array of ways that parental involvement correlates with students’ test scores.

Researchers also argue that these inconsistent findings in the literature appear because different students and families possess various levels of social capital. That is, socioeconomic standing (SES) and family structure are variables that influence parental involvement, yet are often overlooked (Lareau, 1987). For example, Astone and McLanahan (1991) argue that children from single parent and stepparent families have parents that offer less parent-student interaction and have lower educational aspirations than do children from two parent families. Consequently, students from two-parent families can attain social capital from two people rather than one; this, in turn, affects student test scores. Recent research, however, refutes this position. Ho Sui-Chu and Willms (1996) found little evidence that families with high socioeconomic standing or families headed by two parents were more likely to be involved in their children’s schooling than families who did not fit these characteristics. Therefore, while they concede that a relationship does exist between SES/family background and parental involvement, they conclude, “parental involvement makes a significant unique contribution to explaining the variation in children’s academic achievement, over and above the effects associated with parental background. Thus, parental involvement had an effect on achievement that was “independent of children’s family backgrounds” (Ho Sui-Chu & Willms, 1996, p. 138).

The final reason used to explain the inconsistent results found between parental involvement and student test scores centers on the idea of cultural capital. As mentioned earlier, the concept of cultural capital holds that people from cultures different from the ones found in the institutions they interact with are at a disadvantage (Lareau, 1987). Thus, in this case, one would expect that since U.S. schools are predominantly Anglo-Saxon and middle class institutions, racial/ethnic minority students would not benefit much, that is attain higher test scores, from parental involvement. The literature, however, does not support this assumption.

African-American families, for example, were more involved than European-American families when it came to home discussions about school activities, regulating and monitoring homework, and having contact with their children’s schools (Ho Sui-Chu & Willms, 1996), all of which benefited African-American student achievement on test scores. In addition, African-American families who communicated their high educational aspirations to their students contributed to long-term student achievement (minimum four years) on math, reading, and science test scores (Hong & Ho, 2005). On the other hand, Asian-American students did not benefit from as many forms of parental involvement as African-American students did. Asian-American students did benefit slightly when their parents participated in their schools, for example, being active in the school PTO (Desimone, 1999).

Similar to Asian-American students, active parental participation correlated positively with Hispanic student achievement (Desimone, 1999). This is consistent with research (Gaitan, 2004) demonstrating that Hispanic families, despite the language barrier (i.e. cultural capital), sought to get involved in all facets of their children’s education, including being active within the schools. In addition, parental communication, especially with regard to school programs and planning for future schooling, also benefited Latino student test scores (Hong & Ho, 2005). These findings suggest that specific parental practices are more effective with some racial/ethnic and income-level parents than with others.
Correlations with Educational Outcomes

Examining the educational outcomes of students is another popular form of evaluating how parental involvement influences academic achievement. By “educational outcomes,” researchers usually mean high school completion or, enrollment in post-secondary education (Anguiano, 2004; Trusty, Plata, & Salazar, 2003). As was the case with standardized tests, the way parental involvement correlates with the educational outcomes of students is linked to both the specific types of involvement and the racial/ethnic composition of the families (Hong & Ho, 2005; Desimone, 1999; Ho-Sui Chu & Willms, 1996).

Parent-student interaction, for example, which includes parents’ communicating with their children about school experiences, future plans, and general topics of interest, proved effective at improving educational outcomes for most African-American, European-American, and Asian-American students (Yan, 1999; Anguiano, 2004). African-American parents who helped their students with course selections, discussed contemporary affairs with them, and attended their extracurricular activities, had students that were more likely to have graduated high school and enrolled in post-secondary education (Yan, 1999). Similarly, Asian-American students were more likely to complete high school when they had parents who helped them with their homework and attended their school activities (Anguiano, 2004).

The effect of parent-student interaction on Latino and Native American students completing high school, however, was at best minimal. For Latino students this reflects the findings by Hong and Ho (2005) which found little correlation between parental involvement and long-term student achievement. One possible explanation for parental involvement failing to have an affect on Native American students stems from the historical legacy of the U.S. educational system excluding and disregarding Native American culture (Anguiano, 2004; Spring, 2004). In other words, lack of cultural capital among Native American students proved more detrimental to their educational outcomes than for other racial/ethnic minority groups. This might also help explain why research that has examined the correlation parental involvement has with student achievement, across racial/ethnic groups, often leaves out Native American students as a category of study (Hong & Ho, 2005; Yan & Lin, 2005; Jeynes, 2003; Desimone, 1999; McNeal, 1999). Unlike the studies reviewed in the previous section on test scores, the findings dealing with educational outcomes are more consistent with the idea of cultural capital.

One study that demonstrated almost absolute consistency with the concept of cultural capital, however, was McNeal’s (1999) research on truancy and dropping out. He argued that among racial/ethnic minorities, parental involvement has little or no relationship to student achievement; only White students benefit from parental involvement. Specifically, he found that a nonsignificant relationship exists between parent-student discussions and completing school for all racial/ethnic minority groups. Not only are the relationships nonsignificant, but they are also considerably weaker in magnitude when compared to those of Whites (McNeal, 1999). In short, the research shows that parental involvement correlates with the educational outcomes of White students the most, yet has little correlation with the educational outcomes of Black students, and has essentially no correlation with the educational outcomes of Hispanic and Asian students (McNeal, 1999). The finding that parental involvement does not correlate with Asian students is a relatively unique conclusion within the literature on parental involvement. However, it does coincide with Jeynes’ (2003) conclusion about parental involvement within Asian-American families. Citing work done by Stevenson and Stigler (1992) and Lynn (1988), Jeynes argues that Asian-American culture values education on so many different levels that enough motivation, irrespective of parental involvement, exists in other aspects of their culture to promote student achievement.

Correlations with Grade Point Average (GPA)

The final variable used to assess how parental involvement correlates with student achievement is students’ GPA. Some researchers (Keith, Keith, Quirk, Sperduto, Santillo, & Killings, 1998) have argued that students’ GPA is the best measure of student achievement because it assesses long-term learning. Others have stated that it is a better indicator because it consists of multiple measurements (i.e. math grades, history grades, etc.) and thus is “more reliable than [a] sub-component [measurement e.g. science test score]” (Fan & Chen, 2001, p. 13). Yet, the number of studies that use GPA as a measure of student achievement are relatively few. To be sure, many articles investigating how parental involvement correlates with student achievement do reference GPA as a form of student achievement, but few actually have it as the primary indicator, nor are differences in GPA examined across racial/ethnic groups. Nonetheless, the GPA is still a heavily used indicator of student achievement in academia and thus the correlation between parental
involvement and GPA warrants at least a brief discussion.

Recall that, when measuring student achievement as a product of both educational outcomes and standardized tests, the literature demonstrates that, in general, Latino, Native American, and to some extent, African-American students benefited the least from parental involvement. On the other hand, Asian-American and European-American students gained the most from parental involvement. In other words, with the exception of Asian-American families, the differences in how parental involvement correlated with student achievement across racial/ethnic groups were consistent with the idea of cultural capital. However, in using the GPA as the indicator of student achievement this trend essentially reverses. For example, Jeynes’ (2003) meta-analysis found that parental involvement had the greatest influence on the GPAs of African-American students (Jeynes, 2003). Specifically, African-American students benefited most from parent-student interaction, which included helping with homework, discussing school experiences, and high parental expectations. Likewise, parental involvement also had a positive correlation with Hispanic students’ GPAs.

A more in-depth study by Keith et al. (1998) showed that Asian-American and European-American students’ GPAs did not benefit the most from parental involvement. For instance, in examining the GPAs (composed of science, English, history, and mathematics grades) of 10th grade students, parental involvement influenced the GPAs of Native American and Latino students more than any other group (Keith et al., 1998). Specifically, the forms of parental involvement showing the strongest correlation with the GPAs of these students were parents communicating their educational aspirations to their students and parent-student interaction regarding schoolwork and school activities (Keith et al., 1998). So what is it about measuring the GPA versus educational outcomes or standardized tests that contradicts the idea of cultural capital?

There is not enough research on how parental involvement correlates with the GPAs of different ethnic groups to draw any conclusions. However, an examination of the research methods used in the Keith et al. (1998) study, specifically controlling for family background and previous achievement, helps to explain this difference. When the variables were controlled, minority families demonstrated higher levels of parental involvement and comparable GPAs to White and Asian-American students. On the other hand, when these variables were not controlled, both Asian-American and White students had higher GPAs than minority students did. This implies that family background might actually have an effect on parental involvement. However, as mentioned earlier, researchers (Ho Sui-Chu & Willms, 1996) had previously found that parental involvement had an effect on achievement that was independent of children’s family backgrounds. This inconsistency highlights a couple of important factors that require consideration in the literature. For one, there is a need to conduct more research examining whether SES and family background does indeed influence parental involvement (Fan & Chen, 2001). Second, is the need for researchers to conduct studies where they control for variables, other than parental involvement, which might affect achievement and thus overestimate the direct effects of parental involvement (Ma, 1999).

A prime example of this is Hong and Ho’s (2005) study, which found that student aspirations mediated an indirect effect of parental involvement on student test scores. In other words, parental involvement, specifically parental aspirations and parental communication with students, indirectly influenced students’ own educational aspirations, which in turn proved to enhance academic achievement. This held across all ethnic groups and showed a correlation with both immediate and long-term student achievement. Furthermore, Ma’s (1999) notion that the direct effects of parental involvement are sometimes overestimated is in line with Keith and Keith’s (1993) idea that the relationship between parental involvement and student achievement is mutually reinforcing. In other words, if a student has attained achievement in the past, this increases the likelihood of parental involvement, which, in turn, affected the current achievement of the student (Keith & Keith, 1993).

**Conclusion**

Interest in how parental involvement correlates with student achievement became a focal point of both public policy and educational research in the 1960s as changes in the institution of the family, including the rise of single-parent families and increases in the number of women entering the workforce, became prominent (Plant & King, 1995). The signing of the NCLB Act of 2002 is indicative of the continued emphasis on researching and promoting this relationship between parental involvement and student achievement. The research already overwhelmingly supports a positive correlation between parental involvement and academic achievement for European-American families. As U.S. classrooms increasingly become racially and ethnically diverse, however, researchers have become interested in how the effects of parental involvement differ across racial/ethnic groups.
involvement on student achievement vary across racial and ethnic groups. Having examined the literature on how parental involvement correlates with student achievement across different racial and ethnic groups brings out two main conclusions.

First, cultural capital matters, but the correlation varies depending on how student achievement is measured. In terms of standardized tests scores, the lack of cultural capital (e.g., not speaking the dominant language) did not significantly alter the positive correlation between parental involvement and student test scores. This trend held for most of the racial/ethnic minority groups. When compared to European-American students, however, only Asian-American students showed comparable levels of achievement on test scores. In terms of educational outcomes, the lack of cultural capital had a more prominent effect on how parental involvement correlated with student achievement. With the exception of European-American students, parental involvement showed little or no effect on the educational outcomes of all the racial/ethnic groups. On the other hand, when measuring student achievement as a product of GPA, this trend is virtually reversed. Despite lacking cultural capital, Latino, African-American, and Native-American parents were more involved and had similar levels of influence on student achievement relative to European-American parents.

Second, the manner in which parents choose to be involved also influences the correlation between parental involvement and student achievement. As mentioned earlier, parental involvement is a broad and vague term that encompasses a wide range of behaviors and actions. Even though this literature review limited the definition of parental involvement to Epstein’s (1995) typology, differences in how various forms of parental involvement correlated with student achievement were evident across racial and ethnic groups. Categorizing which forms of parental involvement were most beneficial to the specific racial/ethnic groups is problematic, however, because this literature review also looked at the three variables of academic achievement. For example, in studies examining standardized test scores and GPA, African-American students benefited from having parents who had contact with their schools and discussed school activities with them. When measuring educational outcomes as student achievement, however, these same types of parental involvement showed a “nonsignificant” correlation. Other racial/ethnic groups showed similar patterns of benefiting from specific forms of parental involvement depending on the variable of academic achievement being measured.

Future research on the relationship between parental involvement and student achievement across racial/ethnic groups should focus on two main concepts: expanding racial/ethnic categories and using data that are more current. The common categories of Black, Latino, Native American, and Asian not only mask intra-group differences, but also exclude certain groups that might not fit into these categories. This includes, for example, multiracial families who could fit into more than one category or Arab-American families, which are, technically speaking, part of the “White” category, yet their culture is different enough to warrant its own area of study (Anguiano, 2004). Furthermore, future studies should examine data that are more recent. The data used in the majority of the studies in the literature review came from the National Education Longitudinal Study of 1988. Data that is almost twenty years old does not reflect societal changes (e.g., the growing prominence of the Internet), which could also affect how parents become involved in their children’s education.

Recommendations for Practice

As the demographics of U.S. schools continue to diversify, two overarching principles should guide teachers and schools in promoting parental involvement across racial/ethnic groups. First, schools must be the initiators. Though the reasons for parents not getting involved are many, one of the major reasons, especially among racial/ethnic minorities, is a lack of knowledge about involvement opportunities (Peña, 2000). In many cases, this is a product of differences in cultural capital. Many schools with a White, middle-class culture do not make parental involvement opportunities explicit because they assume all parents inherently know how they could get involved. Despite a sincere desire to help their children succeed in school, racial/ethnic minority parents, whose cultural backgrounds often differ from that of the schools, are not always aware of how they can become involved (Keith & Keith, 1993).

Second, schools must localize parental involvement programs to meet the needs of parents (Desimone, 1999; Vandegrift & Greene, 1992). Since parents from different racial/ethnic groups engage in different types of involvement, teachers and schools should base their outreach efforts on a wider range of involvement opportunities. Specifically, schools should take into account the language, culture, and educational levels of the parents they serve (Peña, 2000). Thus, schools can devise effective parental involvement plans by considering the social and cultural capital of their students and their parents.
While the aforementioned principles should form the basis of any parental involvement program, the literature also provides some specific practices for schools and teachers to implement.

1. Making parents feel welcome. A simple yet overlooked practice, making parents feel welcome is a powerful strategy to initiate parental involvement. This is a particularly useful practice for secondary teachers who often have to interact with parents who have had previous negative school experiences and thus are hesitant to get involved (Desimone, 1999). Making parents feel welcome, however, means teachers should begin by establishing a personal rapport with parents in order to gain their trust and attain a sense of what form of involvement is best for respective parents (Peña, 2000; Vandegrift & Greene, 1992). In addition, teachers and schools should provide information to parents in languages and forms that closely match their cultural norms (Yale Child Study Center, 2001).

2. Fostering and raising parents' expectations and aspirations for their students. Parental expectations and aspirations are the most consistent form of parental involvement that is positively correlated with student achievement, across racial/ethnic lines. Consequently, teachers and schools should focus on mediating how parents communicate their educational expectations and aspirations to their children. This is especially important for racial/ethnic minority parents whose children are often stigmatized as low achieving or “at-risk.” Schools can increase parent-student communication regarding expectations and aspirations by establishing programs that center on caring and engagement in student learning as well as involvement in formal and informal extracurricular activities (Keith et al., 1998; Yan & Lin, 2005).

Parental involvement is an area of education where any action to stimulate participation is better than no action. However, there are a couple practices teachers and schools should be cautious of when trying to promote parental involvement.

1. Blaming parents for lack of involvement. Educators and administrators are quick to fault parents for their lack of participation. This is often the outcome of teachers making a one-time invitation to involve parents and not getting a response. As a result, schools begin to label parents as “problematic” or “hard to reach,” effectively shifting the burden of involvement on the parents (Gaitan, 2004, p. 15). An accentuation of this culpability is evident among racial/ethnic minority families where teachers often perceive differences in language or culture as contributing to a lack of school-family communication about parental involvement. In blaming parents for the lack of participation, schools often neglect to examine the shortcomings in their approach toward trying to garner parental involvement.

2. Ignoring non-traditional forms of parental involvement. The vast majority of the research on parental involvement has focused on traditional forms of parental involvement, which includes mostly school involvement—activities where parents are visible in the school. Not surprisingly, then, teachers and schools often overlook non-traditional forms of parental involvement. For example, most educators would not consider Mexican immigrant parents taking their children out to the fields to teach them the value of hard work as a form of parental involvement that had educational value (Yan & Lin, 2005). In the case of racial/ethnic minority parents, differences in their culture and that of the school enhances the likelihood that teachers need to be more aware of how parents are participating in their students’ education. Failing to recognize the educational value of these forms of involvement can marginalize parents and hinder them from future involvement.

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Mutual Respect:
Implications for Classroom Effectiveness

by Monica Lloyd

In an effort to understand how mutual respect in the classroom affects classroom learning, this paper explores the literature on classroom climate, democratic classrooms, and culturally relevant teaching. While examining these different elements, it becomes apparent that mutual respect involves many components. When teachers attend to the components of care, community, democracy, choice, relationships, culturally-relevant teaching practices, and trust, they create more effective classrooms for learning.

Introduction

Many teachers and prospective teachers would probably agree that an important factor in classroom management and learning is that of mutual respect. But what exactly is mutual respect? ‘Mutual respect’ is not found in the dictionary, yet it is something that researchers take note of and classify as a component of effective teaching (DeVries, 2001; Haynes, 2003; Green, 2000). Mutual is defined as something that is shared in common; something directed by each toward the other or others; or having the same feelings one for the other (Webster’s, 2005). Respect, on the other hand, has multiple meanings. It can mean a feeling of deep admiration for someone or something elicited by their abilities, qualities, or achievements; the state of being admired in such a way; or due regard for the feelings, wishes, rights, or traditions of others (Microsoft Office Dictionary, 2004). Webster’s offers a simplistic definition: consideration for; worthy of high regard; esteem; consideration (2005).

Although many teachers and students would agree that mutual respect is important in schools, it is difficult to empirically define and study mutual respect because it is difficult to see. In other words, what does mutual respect actually look like? In investigating this question, Rheta DeVries spent a considerable amount of time observing teachers. She sees mutual respect as a teacher giving her students “choice, responsibility, and control”, as well as a subtler “way of being” with students (2001, p. 169). Others see mutual respect as a necessary aspect for democratic participation (Harlow & Cummings, 2000). Lisa Delpit compiled interviews from in-service and pre-service teachers who described “good teachers” as: caring whether students learned and challenging all students, connecting learning to “real life,” and communicating with and making an effort to know the students and their cultural background (Delpit, 2006). These teacher qualities are all aspects of respect for the student and the student’s experience. Throughout this paper, research is presented that demonstrates aspects of mutual respect that are more easily examined and quantified. Those aspects include classroom climate, care, community, democracy, choice, attitude, and trust.

Historically, aspects of mutual respect were investigated because of the influence they had on classroom management. More recently however, components of classroom climate have been researched for the influence on student achievement and as ways to reduce the achievement gap. Washington State’s Office of Superintendent of Public Instruction (OSPI) recently published a research and evaluation of the existing “achievement gap” in this state (Shannon, 2002). Although the study found that the “achievement of white students” was “less related to the strengths and weakness of the school’s facilities, curriculums, and teachers” than minority students, the study did conclude that, “the quality of teachers shows a strong relationship to pupil achievement and has a cumulative impact on achievement” (Shannon, 2002, p. 15). These qualities are later described, among them teacher attitude, expectations and persistence, and care (Shannon, 2002, pp. 29-32). The larger discussion of the achievement gap includes educators working toward justice and equality in education for all children. Among those educators are Lisa Delpit, Geneva Gay, Norris Haynes, and many others who believe the social and emotional needs of students must be addressed along with the academic needs. Moreover, that academic success is linked to social and emotional learning (Haynes, 2003; Haynes, Ben-Avie, & Ensign, 2003; Haynes, Emmons, & Ben-Avie, 1997).

There is a plethora of research and studies available regarding many factors that influence classroom effectiveness and learning. These factors include: teacher effectiveness, instructional methods, teacher persistence and expectations, parental involvement, socioeconomic status, opportunities for learning outside of the classroom, and social influences within school. Although important to consider, these factors are not within the scope of this
paper. Rather, the focus is narrowed to examine specifically the factors related to how mutually respectful actions, relationships, and communication stand alone to influence learning.

Still, mutual respect remains a slippery concept, never explicitly defined. Educational and social researchers have been in part examining the affect of mutual respect in the classroom by investigating how care, community, democracy, choice, student and teacher attitude and relationships, culturally responsive teaching and trust are all aspects of a classroom climate that may or may not facilitate learning by fostering or neglecting mutual respect. In the United States, this process can be seen to have begun when John Dewey started writing about education. Rather, the focus is narrowed to examine mutual respect in the classroom by presenting the traditional definition of care as engrossment; a mental state of anxiety, fear or solicitude about someone or something; regard for or inclination toward something or someone; and to be charged with protection, welfare or maintenance of something or someone (p. 9). In addition to the definition, care reflects the give and take between two people, their relationship, the quality of attention between one caring and one cared for, and commitment to a person (Noddings, 1984). One aspect of care involves students’ perceptions of their teachers as caring.

Another aspect of care that can be seen as respect involves challenging students or maintaining high expectations for learning and achievement (Osterman & Freese, 2000). Moreover, caring teachers with high expectations have been linked to student improvement in mathematics (Haynes et al., 2003). In these examples, the teacher as caring is committed to challenging her students. However, in order for her to continue caring and remain committed to her students she must receive something back; this is the relationship between teacher and student. In this way caring, an act of mutual respect, can influence learning.

In her review of literature on classroom climate, Carolyn Anderson cites a study from 1970 that indicated that aspects of caring and trust were involved in student achievement. More recent studies look at teacher caring and student engagement, stating that “students who are engaged are interested in learning, enjoy challenges and persist in completion of tasks” (quoted in Osterman & Freese, 2000, p. 287). Furthermore, a caring teacher-student relationship and student autonomy are also related to student engagement in the learning process (Osterman & Freese, 2000). According to students, when teachers create interesting classes, show that they respect students by listening and communicating openly, are fair and honest in how they treat their students, and keep their promises, they demonstrate to their students that they do indeed care (Osterman & Freese, 2000). In addition, many students and teachers felt that nurturing characteristics, another way to express care, were important to academic success and a valued characteristic for schools (Green, 2000). Finally, studies show that the result of caring respectful relationships between student and teacher leads to positive communication and deepening trust (Green, 2000).

Marshal Rosenberg has long been a proponent of compassionate communication as a way to foster peace in the world. At the very deepest level this kind of communication involves the use of language to convey mutual respect in all verbal exchanges, whether they are confrontational or complimentary (Rosenberg, 2003).

**Characteristics of Mutual Respect**

Nel Noddings (1994) begins the discussion of care in the classroom by presenting the traditional definition of care as engrossment; a mental state of anxiety, fear or solicitude about someone or something; regard for or inclination toward something or someone; and to be charged with protection, welfare or maintenance of something or someone (p. 9). In addition to the definition, care reflects the give and take between two people, their relationship, the quality of attention between one caring and one cared for, and commitment to a person (Noddings, 1984). One aspect of care involves students’ perceptions of their teachers as caring.

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In the classroom, an essential way to support positive and meaningful communication is in the formation of community. Community is more than just “physical proximity,” rather a community must possess common intentions, beliefs, knowledge and understanding (Dewey, 1916/1997, p. 4). Moreover, a community is, “intentional, inclusive, heterogeneous, self-critical, mutually binding, without evil intent, grounded in inclusive altruism, trust, and mutual respect” (Kratzer, 1997, p. 348). Given the extensive qualifiers for a community, it appears that the intentional formation of community needs to be carefully thought out and executed. This formation can take place in many ways. One starting place for progressive educators is in the creation of community guidelines (Castle & Rogers, 1993-94; DeVries, 2001; DeVries, Hildebrant, & Zan, 2000). According to DeVries (2001), the cooperative rule making process allows the students to come up with rules in their own words, which make sense to the children and promotes autonomy. The result from a case study of an urban elementary school showed that the school climate of mutual trust and respect revolved around an ethic of caring that arose from the school wide ownership and responsibility for cultivating community (Kratzer, 1997).

In addition, students’ sense of belonging also plays a part in creating a climate of mutual respect. The degree to which a school is able to foster community influences students’ sense of belonging, which has been shown to influence “risky behavior,” “academic motivation,” and “positive school-related affect” (Anderman, 2003, pp. 6-7). A review of the literature on the need for “belonging” in a school community provides extensive evidence as to the impact of community, defined as “the quality of human relationships,” on students’ learning (Osterman, 2000, p. 323). Using Karen Osterman’s definition of community, it becomes apparent that community can be as small as an individual classroom or a group within that classroom.

Elizabeth Cohen (1994) believes that small group work “will improve intergroup relations by increasing trust and friendliness” (p. 6). To support this suggestion, in her review of literature, Anderson (1982) cites studies that indicated that cooperative behaviors fostered the environmental conditions for learning. Therefore, by creating opportunities to work in small groups, teachers are providing chances for students to practice communication skills essential in a democratic classroom, while forming a sense of community and cultivating a feeling of belonging in the group.

What is democracy? Lickona and Paradise present a broad description of democracy as, “an ethic of mutual respect and cooperation among persons; a faith … that people do their best, grow their most when they participate in making and carrying out decisions that affect their lives; and a process … whereby mutual respect and cooperative, participatory decision making are put into practice among people” (Lickona & Paradise, 1980, p. 322). If democracy is cooperative, participatory decision making, it follows that mutual respect and reciprocity are essential (Harlow & Cummings, 2000). Furthermore, a review of the literature regarding democratic classroom climate suggests a relationship between the development of participatory skills and positive civic attitudes, which is influential in the progression toward a democratic classroom climate (Angell, 1991). Moreover, considerable evidence points to an increase in academic motivation and achievement when students choose what task to do, and how to find solutions to problems (Kohn, 1993).

The ability to make choices is an important part of life. In William Glasser’s discussion about the concept of choice, he introduces choice theory, or the psychology of internal control. The consequence of choice can be assessed by the toll that external control has on human happiness, health, education, motivation, crime, and violence (Glasser, 1999). In the classroom, giving children choices affects academic achievement because children are included in the decisions of what they learn (Anderson, 1982; Duke, 1977). Choice affects teacher attitudes because of the creation of a more democratic classroom and power sharing (Kohn, 1993). Choice affects social and behavioral issues because students are given opportunities to feel their opinions are respected and that they matter in the community, which helps build a sense of belonging (Duke, 1977; Kohn, 1993; Osterman, 2000). Lastly, “students who experience autonomy will perceive themselves to have choice and will also experience a connectedness between their actions and personal goals” (Haynes, 2003; Osterman, 2000, p. 239). In other words, autonomy can be encouraged by the creation of a community atmosphere of mutual respect (DeVries et al., 2000).

In the constructivist classroom autonomy is an important part of student development. Autonomy is the ability of a student to act as a result of rational decisions based on personal morals. DeVries, Hildebrant, and Zan (2000) present a definition of autonomous morality as “following moral rules with a feeling of personal necessity” (p. 11). In other words, the individual is following rules or guidelines because he chooses to based on his feelings of right and wrong (DeVries et al., 2000). It follows, then, that the autonomously moral student also allows internal convictions to guide respectful relationships (DeVries et al., 2000).
For the experiential educator, offering opportunities for choice is essential. First, allowing students to participate in decisions offers occasions for learning about consensus, and assists in development of group roles. Next, the experiential educator offers real choices to her students as a way to empower the students (Warren, 1993). Lastly, the experiential educator creates opportunities for choices that can be supported, regardless of what was chosen (Warren, 1993). In summation, by offering choice to students and promoting student autonomy, educators are in effect respecting their students as people (Kohn, 1993).

If offering choices to students influences learning, and giving students choice empowers and fosters a sense of autonomy, it is logical that giving students choices would greatly influence their attitudes toward their school. In a review of literature concerning students’ perceptions of classroom dynamics, researchers found that, “eighty-one percent of the those questioned felt that their most violated right was teacher respect for student opinion” (Duke, 1977, p. 263). The adults at these schools did not believe in the students ability to make choices regarding their welfare, and consequently were not given opportunities to make choices. Therefore, the impact on those students attitude toward their school became negative. Deeper effects include a breakdown of trust between students and teachers, a feeling that the school rules are not created for students, and overall discontent with the school (Duke, 1977).

However, a study by James Griffith (1999) showed that there can be variations within a school in the student perception of their school’s “learning and social environment” or climate (p. 361). This variation of student perception influences student attitude toward the school asymmetrically. In addition, the variation of parent involvement has been shown to have an effect on the school climate, which could then be linked to student attitude toward their school (Haynes, Comer, & Hamilton-Lee, 1989). More importantly, for students to become invested in their school, which would create a willingness to be there and an attitude that shows it, their home culture must be honored (Delpit, 2006). If teachers recognize that students have worries and concerns that influence their attitude at school, and are willing to listen, they may more effectively reach some students, because “before students will learn, they must feel good about their learning environment” (Duke, 1977, p. 268).

As classrooms across the United States become more ethnically diverse, culturally responsive teaching “based on a sociocultural theory of education” (Katz, 1999, p. 496) influences more students. Geneva Gay (2000) defines culturally responsive teaching (which includes culturally relevant, sensitive, centered, congruent, reflective, mediated, contextualized, synchronized and responsive teaching) as teaching that uses “the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them” (p. 29). The sociocultural theory sees students from racially and ethnically diverse backgrounds as “conduits for facilitating teachers’ greater understanding of the cultural knowledge that students, their families, and their communities bring to school” (Katz, 1999, p. 496).

Not only does culturally responsive teaching validate and empower students, it enables students to become more successful learners (Gay, 2000; Ladson-Billings, 1994). If we take the definition of care that includes challenging students and merge it with “social scaffolding” or “social and personal supports that buffer students as they are being taught high-level academic skills and how to take ownership of their own learning,” we begin to see low-achieving students from minority cultures succeed in academics (Gay, 2000, p. 32). Moreover, congruent communication, or speaking in a way that is harmonious with the feelings being experienced by the listener, needs to be present (Brown, 2005). Congruent communication relies on trust, which is in turn developed by effective and congruent communication. Therefore, the quality of communication between students and teacher affects student participation, which affects academic success (Brown, 2005). Most importantly though, teachers need to establish relationships with their students, based on knowledge of, and respect for, their students and the cultures they come from (Katz, 1999).

Lisa Delpit (2006) claims that we can save the children we teach, with changes in teachers’ attitudes. Part of defining teachers’ attitudes is to examine how teachers approach within-class relationships. For example, “children are more likely to show respect to teachers who treat them respectfully” (Castle & Rogers, 1993-94, p. 80). In addition, students who perceive their teacher to respect their ideas, demonstrate more tolerance for other students’ ideas (Angell, 1991). Martin, Veldman and Anderson (1980), in analyzing data collected in first-grade classrooms on ways teachers interacted with students, confirmed that the way a teacher responded to a student who was chosen randomly to answer a question, who then failed to respond, influenced that student’s future success. In this example, the teacher’s response to her student either empowered or disempowered the student. Therefore, questioning
how teachers go about empowering their students’ can be seen as a direct reflection of teacher attitude toward students (Finnan, Schnepel, & Anderson, 2003). In a school where teachers and students demonstrate mutual respect neither party would end up being publicly embarrassed by the other (Kratzer, 1997). In brief, empowerment of students can easily be seen to influence students’ attitudes and willingness to participate, but empowerment is not likely to exist in places where the teacher disrespects her students.

In a review on the literature on classroom climate, Haynes, Emmons and Ben-Avi (1997) explain that the students reported feeling a lack of respect from some teachers, and a lack of teacher’s concern about the students’ personal problems. In addition, a study on urban high schools reported, only 40% of the student respondents agreed with the survey question “teachers at my school treat students with respect” (Hemmings, 2003, p. 420). Finally, a sure sign that a teacher disrespects her students is when she assumes that her students “don’t know or can’t learn the material,” which in and of itself is not empowering (Lehmann, 1981, p. 42).

In all human relationships there is a sense of connection that can be positive or negative. In regards to students, “relationships in the classroom have an impact on student achievement because the brain does not automatically or perceptually separate cognition from emotions” (Witmer, 2005, p. 223). Studies have looked at teaching effectiveness and teacher-student interactions, drawing connections between relationships and student achievement (Martin, Veldman, & Anderson, 1980). In addition, current literature links the quality of student-teacher relationships to student engagement in the classroom (Osterman & Freese, 2000). Unfortunately, studies determine that, although relationships within a classroom may have a positive effect on student learning within that class, it may not carry over to the success in other classes (Martin et al., 1980). Along similar lines, “the disengaged student ... is emotionally distant from his or her education” signifying a lack of relationship with his or her teacher that often resulted in a lack of academic achievement, even to the extent of association with school dropout (Osterman & Freese, 2000, p. 287).

In order for relationships in the classroom to enhance learning they must be actively developed. The experiential education model cultivates relationships between all participants (students and teachers) at the beginning of all group experiences. In addition, the teacher remains a “learner/participant” throughout, thereby sharing along with students and contributing to group unity (Warren, 1993, p. 36). Not only are teacher-student relationships important but student-student relationships also impact student learning. Dialogue or discussion is one way to foster student-student relationships. Moreover, “having the opportunity to express personal opinions in a safe and respectful environment gives children the opportunity to discover that others care. Through such experiences, they develop feelings of trust, mutual respect, and solidarity” (Osterman & Freese, 2000, p. 300).

Trust within a classroom, according to some, may very well be the result of all the aspects of mutual respect coming together (Adkins & Rogers, 1994; Bryk & Schneider, 2003). DeVries, Hildebrandt and Zan discuss perspective taking, the ability of students to consider another’s point of view, and recognize that feelings of mutual affection and trust are motivators for perspective taking (2000). Moreover, students willingness to engage in perspective taking is dependent on the development of mutual respect, which is possible through ‘perspective-taking’ activities such as: conflict resolution, co-creating classroom rules, student choice in classroom procedures, classroom discussion on real life moral issues, and resolving everyday interpersonal problems (DeVries et al., 2000). A case study that examined the ‘magic’ of two women’s classrooms discovered that development of trust was the key to the success of the classrooms, and was due to the creation of “lifelong guidelines.” The development of these guidelines assisted in the creation of a warm, friendly, supportive environment that encouraged feelings of inclusion and security, which influenced classroom efficiency (Adkins & Rogers, 1994).

Currently, examples of public schools that hold an ideal of mutual respect as a central theme in their educational philosophy exist. Some traits that these schools share are: a student-centered curriculum, an emotionally safe atmosphere, and mutually respectful interactions with teachers and students. James P. Comer designed a “child-centered, systems approach to school improvement” known as the School Development Program (SDP) (Haynes, 1998, p. 3). As a systems approach this model operates under the belief that students need to see adults modeling mutually respectful and cooperative behaviors. Then children will begin to learn the value of teamwork as they try out these behaviors. In doing so they gain the respect of the adults which reinforces their efforts, helping children develop positive self-esteem and self-efficacy (Haynes, 1998). In contrast, John Dewey’s philosophy of education is based upon experience “which is always the actual life-experience of some individual” (Dewey, 1938/1997, p. 89). For the experiential educator to draw knowledge out of an individual, the experiences of
that individual are carefully cultivated. Therefore, schools that focus first and foremost on the experiences of their students must be student-centered.

Karen Warren, another experiential educator, emphasizes the importance of creating a physically and emotionally safe learning environment. To do this teachers must manage many aspects of learning. She presents the metaphor of the “Midwife Teacher” as an example of a mutually respectful, emotionally safe learning atmosphere. “Midwife teachers are the opposite of banker teachers. While the bankers deposit knowledge in the learner’s head, the midwives draw it out” (Warren, 1993, p. 33). Similarly, the constructivist classroom’s creation of community guidelines as a way to cultivate a positive sociomoral atmosphere, is complementary to establishing emotional and physical safety (DeVries & Zan, 1995). Likewise, within the Accelerated Schools Project model, mutual respect is essential for an emotionally safe and supportive atmosphere (Finnan et al., 2003). Finally, a unified climate where all parties are respected forms the foundation for meaningful involvement, full participation, and trust. “The evidence shows that a supportive, caring, culturally sensitive, and challenging school climate is a significant factor in the degree of school success experienced by urban students” (Haynes, 2003, p. 110). As can be seen from these examples, mutual respect becomes an integral part of the atmosphere or climate of the school.

**Classroom Climate**

In a review of the literature on school climate, Haynes, Emmons, and Ben-Avie (1997) present a definition of school climate as “the quality and consistency of interpersonal interactions within the school community that influence children’s cognitive, social, and psychological development” (p. 322). In a review specific to democratic climate in elementary classrooms, Angell (1991) defines classroom climate as “a ‘distinctive sociopolitical atmosphere’ that consists of decision-making procedures, patterns of student participation, treatment of controversial issues, responses to student opinions, and other interaction patterns in the classroom” (p. 242). In addition, an older review of literature looking for school climate, refers to it as “the total environmental quality within a given school building” (Anderson, 1982, p. 369).

Rachel Minkler (1955) states that, “the general climate of the classroom is determined, at least in part, by the degree of mutuality of acceptance. … Mutual understanding and respect may precede or may follow acceptance” (p. 15). She also regards mutual confidence as a necessary part of the classroom. When combined, these aspects support a student’s sense of belonging in the group as an essential ingredient for personal and social achievement. A wealth of studies have shown a relationship between the quality of school climate and achievement (Anderson, 1982; Haynes et al., 1997). This suggests that mutual respect is an aspect of positive school climate that involves the quality of interactions between the student and the teacher as well as how the teachers and staff at a school “support and develop students’ capacity for success” (Haynes et al., 1997, p. 322). Their study also revealed that, “according to many students, the climate of the schools they attend is characterized by high levels of distrust and disrespect among and between students and teachers and the sense that students do not care about one another” (Haynes et al., 1997, p. 325). Unfortunately, specific data regarding academic success and student perception of respect was not gathered.

In conclusion, emotions are powerful tools for learning. Research shows that students emotions can positively or negatively affect learning (Caine & Caine, 1991; Haynes et al., 2003; Wolfe, 2001). Furthermore, “emotion drives attention and attention drives learning” (Wolfe, 2001, p. 86). If the student is not paying attention they are neither emotionally engaged nor learning (Caine & Caine, 1991). In addition, “the human brain is a social brain” therefore, it is up to teachers to support the social brain by cultivating a sense of community in the classroom and valuing social relationships (Caine & Caine, 1991, p. 117). Recognizing the emotional importance of learning is essential for educators because respecting students may elicit emotions that positively affect learning while disrespecting students may elicit emotions that negatively affect learning. Finally, cultivating and sharing in the creation of community in the classroom honors and respects the social nature of humans and influences learning.

**Conclusion**

Throughout this paper mutual respect has been examined from many different perspectives. It has been shown that mutual respect is an inextricable part in caring interactions and relationships between teacher and students, in the democratic community formation process, in culturally relevant teaching, and in the establishment of mutual trust.

Care is involved in how students perceive their teachers as caring (or nurturing), how teachers show that they care by setting high expectations for students, and how teachers trust in the classroom (Anderson, 2003; Green, 2000; Haynes, 2003;
Noddings, 1994; Osterman, 2000). Care also plays a part in encouraging autonomy, which aids in engaging the student in the learning process (Osterman, 2000). Finally, care can be seen as a way of showing respect when the teacher listens to her students, maintains open communication, is fair, honest, and keeps promises (Osterman, 2000).

Although community and the formation of community is not an aspect of mutual respect per se, the process of building community fosters mutually respectful relationships. When community guidelines are created as a group, mutual trust and respect, a sense of belonging in that community, and school related attitudes are all influenced (Anderman, 2003). Moreover, group work becomes a time to build community within the classroom and foster a sense of belonging that influences behavior and academic motivation (Anderman, 2003; Cohen, 1994).

Building community is one way to teach democracy, which holds centrally the ideal of mutual respect, cooperation, and participation. In addition, student choice can be a positive aspect of a democratic classroom and choice affects students’ decisions about learning, their attitudes toward learning, and their sense of feeling respected as well as belonging (Anderson, 1982; Duke, 1977; Kohn, 1993; Osterman, 2000). Again, choice is an important part of student autonomy, which influences student attitude toward school.

Culturally relevant teaching also influences student attitude toward school but perhaps more importantly it empowers students. Culturally congruent communication between a teacher and a student is an intertwined cycle that builds trust while relying on trust, and affects participation which in turn ties directly into academic success in school. The relationship between the student and teacher becomes one that supports, motivates, and empowers the student (Angell, 1991; Castel & Rogers, 1993; Delpit, 2006; Gay, 2000).

However, because the quality of relationship between a teacher and a student often only influences that student’s academic motivation in that class, it is important for all teachers to strive to create positive relationships with all students (Martin et al., 1980). Relationships are not a given, they must be actively developed. Relationships are a chance to power share, and a place for open dialogue so that the relationship can develop naturally. From that relationship comes trust, mutual respect, and solidarity (Osterman & Freese, 2000).

Because culturally disrespectful teaching and the oppression of anyone not of the dominant culture is at the root of education in the United States, the recognition that mutual respect is important in public education is a historical breakthrough for the field of education. For example, Washington’s OSPI recently publicly recognized the importance of mutual respect, as it corresponds to caring and persistent teachers with high expectations who teach a culturally congruent curriculum. All these aspects of teaching are acknowledged as important aspects of effective instruction (Shannon, 2002). Moreover, understanding that a democratic climate and the formation of community supports learning is important in light of the historical tendency of public school classrooms to operate in a totalitarian, non-democratic manner.

Figure 1 shows a representation of the interconnectedness of the mutually influencing factors that combine or clash to influence student success. The diagram is like a flower where all petals need to connect with something common that becomes the stem, holding everything together. Similarly, mutual respect is like the center of the flower, it holds all the different aspects that are influenced by mutual respect from falling apart, to create an environment where learning can occur for everyone.

As has been shown, mutual respect is the stem that connects the many different petals of the classroom climate together, and the classroom is where a lot of learning happens, so the climate of the classroom directly influences learning. Washington’s OSPI has researched and recognized the factors that need to change in order to reduce the achievement gap, and stated clearly what these factors are. It is evident that creating a classroom where mutual respect is a foundational component of the classroom climate can influence academic success for all students. Recognizing that one way to influence student learning is to foster a healthy, mutually respectful classroom climate is the first step to creating a system that effectively teaches all children. The next step is to continue examining models that teach in mutually respectful ways to discover how and why these models work. In particular, research is needed on how different organizational structures help or hinder the ability of a teacher to create a mutually respectful classroom climate.

**Recommendations For Practice**

For educators interested in facilitating the creation of a classroom climate centered on mutual respect, there are many interconnected and mutually influencing layers to understand. However, creating this climate requires more than just an understanding of the factors involved; it also requires time, careful planning, and active engagement.
Figure 1.
The Interconnections of the Aspects of Classroom Climate. All Petals Overlap on the Need for Mutual Respect.

First and foremost, building a learning community is essential. Building community can be as simple as allowing the rule making process to be a cooperative endeavor between teacher and students. The process of creating the rules or guidelines assists with students feeling that the teacher cares about them, gives students ownership toward the classroom, and a sense of belonging (Castle & Rogers, 1993-94; DeVries, 2001; DeVries et al., 2000). The students’ sense of belonging is important because it influences their behavior including motivation and feeling toward school (Anderson, 2003).

Building community involves more than just creating guidelines. Building community also involves developing relationships and trust between the teacher and the student as well as between students. These relationships are important because caring respectful relationships between teacher and student lead to positive communication and deepening trust (Osterman & Freese, 2000). Therefore, building community also involves building trust, and building trust in the classroom requires mutual respect, perspective taking, and willingness to engage in activities. In this way, building community influences classroom relationships, which influence trust and directly influence student success (Katz, 1999; Martin, Veldman, & Anderson, 1980).

Creating a classroom climate that is mutually respectful requires that the curriculum taught be culturally relevant to the students. Teaching in this way validates the culture of all students as well as empower all students, enabling them to become successful learners (Gay, 2000; Ladson-Billings, 1994). By teaching a culturally relevant curriculum, the teacher is modeling respect for the culture of her students as well as building trust and relationships that directly influence student success (Katz, 1999; Martin et al., 1980). Not only is a culturally relevant curriculum necessary, culturally congruent communication is also needed. Congruent communication affects student participation, which is a precursor to student success (Brown, 2005). Culturally relevant teaching impacts relationships, trust, and belonging, which are all important factors for classroom learning.

Small group work is another way to improve classroom relationships, trust, and belonging (Cohen, 1994). Small group work gives students a chance to practice communication skills essential to a democratic classroom, and improves intergroup, and cross-cultural relationships in the classroom (Cohen, 1994).
Student choice plays directly into academic motivation and achievement because students feel that their choices regarding what they learn are important and valued (Kohn, 1993). Giving students choice in matters of community helps students develop their sense of belonging to the community, which in turn affects behavior and motivation.

In moving towards the goal of a mutually respectful classroom climate, the following six practices are recommended:

- Take the time to build a sense of community and trust. This helps foster students’ sense of belonging, which affects motivation and behavior.
- Create community or classroom guidelines cooperatively with students, using student words.
- Give real choices to students and see that students can be supported in those choices. When students feel their choices are respected, they are empowered.
- Actively develop strong relationships with students, and facilitate activities that foster strong relationships between students.
- Teach a culturally relevant curriculum that honors all students.
- Work to create a classroom climate that includes mutual respect, mutual understanding, mutual acceptance, mutual confidence, and mutual trust.

Once all the elements influencing classroom climate are addressed, both the students and the teacher will feel empowered in their roles in the learning community. Moreover, classroom management will require less time, and students will be more motivated and committed to classroom learning. By following these six recommendations, teachers will be facilitating a classroom climate founded on mutual respect, where both the teacher and the students will reap the benefits.

References


Choice: Fostering a Love of Reading
by Lauren Locke

Self-selected reading has been proffered as a solution to the educative problems of illiteracy and culturally unresponsive standardized curriculum. Contrary to the National Reading Panel’s highly debated 2000 report, researchers and educators have found self-selected reading to have a beneficial effect on students’ reading motivation, achievement, and enjoyment. A review of self-selected reading case studies, true experiments, quasi experiments, meta-analyses, and observations by educators support the pedagogical soundness of the practice. Self-selected reading is best bolstered through a combination of a well-stocked, culturally responsive library, and a school staff that has received professional development in best practices. For federal monies to fund self-selected reading, the National Reading Panel must conduct a new and legitimate study.

Introduction

In U.S. public schools, the practice of reading has been changing since A Nation at Risk was first published in 1983, followed by its resultant policy developments. In these last years, although public education has changed, the explicit goal of motivating students to read has endured. As shown in the National Education Association’s 2000 report, this goal of fostering students’ motivation to read is central to many teachers’ education philosophies. While avid reading and intellectual gains are not always synonymous, there is a definite causal relationship (Mosenthal, 1999). The practice of allowing students a choice in their reading materials has been found to be a very effective strategy in motivating them to read. Motivation to read leads students to read more, which, in turn, aids comprehension and reading achievement (Guthrie, Wigfield, Metsala, & Cox, 2004). Teachers and educational researchers contend that by allowing students to choose their own reading, they become more engaged and enthusiastic readers (Guthrie & Humenick, 2004). While giving students a choice of reading materials has been found to be a successful reading motivation strategy, the practice has been discouraged in the face of a contentious debate over national education policy (Tollefson, 2000). A product of A Nation at Risk, The No Child Left Behind Act of 2001 (2002), in part, spurs on the momentum for this debate.

One of the stated overarching goals of the No Child Left Behind Act is for the U.S. public school system to begin the process of making life-long readers of its students. The current national education policy seeks to fulfill this goal by making recommendations based on the findings of the National Reading Panel (NRP) and other governmental research groups. The NRP’s 2000 report finds no significant connection between the classroom practice of self-selected reading and increased reading motivation and achievement (National Reading Panel, 2000). However, educational researchers and teachers have taken objection to this position.

This paper seeks to explore the relationship between the practice of students in middle and secondary school self-selecting reading materials and any observable gains in their intrinsic reading motivation and achievement. Research on reading has focused more on elementary students, with significantly less research devoted to middle school and secondary students. However, some cross-age studies have found generalities in the results. In one such study the connection between reading motivation and reading achievement was found to be the same for secondary students and elementary students (Guthrie et al., 2004). This paper is written with two assumptions. First, this paper assumes that the relationship between reading motivation and reading achievement will be the same across age groups. Second, this paper assumes that students in grades 4 through 12 will have a similar response to self-selecting reading.

The classroom practice of students choosing their own reading has been termed multiple ways and has been implemented in various forms. This paper will explore all forms of choice reading that allows for students to select their own reading and then gives them opportunity to do that reading during class. For the purposes of this paper Cunningham, Hall, and Gambrell’s (2002) term, self-selected reading, will be used, as it connotes the least restrictive sense of the practice.

As aforementioned in this paper, self-selected reading can be supported in the classroom in different ways. Silent sustained reading (SSR), individualized reading, mini-lessons, self-selected response portfolios, inquiry-oriented instruction (Walker, 2003), and reading and writing workshop (Atwell,
believe that their self-selected books have been some practices may foster intrinsic motivation for reading, books they choose for themselves. When students do Nicholls, Bates, Brankis, & Debolt, 2002). These comprehensive surveys, students have been found to their reading (Guthrie & Wigfield, 2000). Through contemporary educational theory reading is evaluated through conferences and reports (Ediger, 2004). These accountability for their reading, whereas individualized students are not typically held academically responsible for their reading, although there are distinctions amongst the practices. Under SSR students are not typically held academically accountable for their reading, whereas individualized reading is evaluated through conferences and reports (Ediger, 2004). Contemporary educational theory suggests that all of the abovementioned classroom practices may foster intrinsic motivation for reading, as they support self-determination through personal choice.

**Literature Review**

One of the main tenets of the self-determination theory is that individuals’ intrinsic motivation is fostered when their autonomy is supported (Deci & Ryan, 1985). Teachers can be seen as a model for the self-determination theory when they support students in self-selected reading (Guthrie & Wigfield, 2000). Students learn—through fulfilling their need for self-determination—how to make mature choices, free from teacher and parent instruction (Thorkildsen, Nicholls, Bates, Brankis, & Debolt, 2002). These choices can be realized through self-selected reading.

When students are given choices regarding their reading they feel respected by their teacher and, in turn, the students have greater motivation towards their reading (Guthrie & Wigfield, 2000). Through comprehensive surveys, students have been found to believe that their self-selected books have been some of the most interesting and engaging books that they have ever read (McCarthy, Hoffman, & Galda, 1999). Students, more often than not, desire to choose their own reading.

Ivey & Broaddus (2000) found, through a survey of 1,700 eastern seaboard 6th graders, that self-selected, independent reading was their favorite literary activity twice over any other language arts curriculum. Students more readily engage with books they choose for themselves. When students do not do the assigned reading it is often because they find the reading uninteresting (Walker, 2003). Much educational research has focused on this loss of motivation for reading as it grows with advancing grade levels.

Through a national survey of 18,000 school children, students’ motivation for reading has been shown to decline through elementary school (Guthrie & Knowles, 2001). The further loss of intrinsic motivation to read in the middle and high school years has been linked to a lack of student ownership of text and a limited ability to self-select reading (Ivey & Broaddus, 2000). Teaching strategies which limit student choice and decision making may account for some of the diminished intrinsic motivation (Guthrie, 2001). The loss of self-expression that comes with less student-centered secondary classrooms may also hamper motivation (Oldfather & Dahl, 1994). Broz (2003) calls for high school students to be given choices in their reading, since by the time they enter high school so many students’ intrinsic motivation to read has been thoroughly diminished.

High school students interviewed said that they did not feel motivated to do their required reading of the ‘classics’ because they found them difficult to understand (Santoli & Wagner, 2004). This apathy for the school’s required reading has been linked to creating a distaste for reading in general (Gallo, 2001). Many researchers and teachers believe that it is important for students to value their work. The value students assign to a reading task has been correlated to their motivation for engaging with the reading, and choice has been found to foster high task value (Horner & Shwery, 2002).

Ivey and Broaddus (2000) have called for centering the curriculum around independent, self-selected reading. Cambourne and Turbill identified the self-selecting of texts to be one of the fostering conditions for learning in a reading-centered classroom (Ruddell & Unrau, 2004). Successful English teachers often utilize this strategy. In an examination of influential language arts teachers, one of the enduring characteristics was found to be an approach which allowed for instruction adaptation in consideration of students’ interests (Ruddell & Unrau, 2004b). Turner also found a correlation between teachers who are considered motivational for their students and classroom practices which emphasize choice (Guthrie & Wigfield, 2000).

Successful teachers allow students to make choices and then, through observation of those choices, teachers gain understanding of their students’ motivations (Thorkildsen et al., 2002). A survey of secondary teachers by Flowerday and Schraw found that teachers considered choice to be a motivating factor in students’ reading (Guthrie & Humenick, 2004). Despite the common belief amongst teachers that self-selecting texts is positive to students’ motivation, choice is not often given because teachers feel overwhelmed with obligations to the school-endorsed curriculum (Ivey & Broaddus, 2000). School-endorsed curriculum is increasingly shaped by the edicts of the national education agenda.

Mosenthal (1999) counters that the national reading educational agenda will not be realized unless there is engagement and motivation on the part of the student; fostering motivation, often, involves giving students choices. Fisher (2004) finds fault with the NCLB Act (2002) as it requires students be able to read independently and comprehend that reading, yet the curriculum supported by national...
policy does not allow students opportunity to read independently. Current educational policy has been largely shaped by the controversial NRP 2000 report. The NRP’s 2000 report dismissed all reading research that did not undertake an experimental analysis. This dismissal was sharply criticized by teachers and researchers alike and even received a resolution of denouncement from The National Council of Teachers of English in 2003 (Shanahan, 2004). Issue has been taken with the NRP report for leaving out valid studies which support SSR and self-selected reading as a means of motivating students to read (Allington & Toll, 2002; Atwell, 1987; Krashen, 2001).

In the 2002 book, The Big Brothers and the National Reading Curriculum, the National Education Association’s (NEA) and the National Reading Panel’s (NRP) respective 2000 reports on reading are said to be contentious to one another. The author finds this contention to be emblematic of the conflict between classroom strategies and educational policy (Allington & Toll, 2002). The NEA report, written by K-12 public school teachers, stressed that reading should be a pleasurable, personally motivated activity and that giving choice was a good way to foster motivation for reading. The NRP report, written mostly by a panel of college professors, finds there is not enough evidence to support self-selected reading as an education strategy (Allington, 2002). The NRP’s 2000 report makes it difficult for teachers to lobby for self-selected reading because this strategy is not included in the NRP’s report of strategies that have been evidenced to improve test scores (Fisher, 2004). But many researchers have found a correlation between self-selected reading and gains in reading motivation and achievement.

Guthrie and Humenick (2004) analyzed 22 studies on reading motivation. The studies compared control conditions with conditions expected to foster motivation. Three quarters of the studies were true experiments and the remainder were quasi-experiments. When researchers compare multiple studies in a meta-analysis, they often find the effect sizes of the various studies so that they may normalize the results. Guthrie and Humenick (2004) used Cohen’s method for calculating the effect sizes by subtracting the mean of the control group’s scores from the mean of the experimental group’s scores and then the difference was divided by the standard deviation found in the control group. So in the Guthrie and Humenick (2004) meta-analysis the effect sizes were a measure of the meaningfulness of the difference between control groups and experiment groups. The studies found choice to have a mean effect size of 0.95 on students’ motivation to read and a 1.20 effect size on comprehension and achievement. Cohen finds any effect size 0.8 or above to be large (Guthrie & Humenick, 2004). The meta-analysis, therefore, finds choice to be a meaningful variable in student effort and success.

In McLoyd’s (1979) seminal random assignment field experiment, choice again was shown to foster intrinsic motivation. In the experiment, some students were assigned a book to read, while another group was allowed to choose a book to read. The students were given an allotted amount of time to read their books and then they were allowed to move on to other activities. When the assigned reading time was over, the choice group continued to read two and half times longer than the non-choice group (McLoyd, 1979). Compiling data from 2 years of students’ diaries, intrinsic motivation for reading was found to have a 15% variance on the amount of reading that the students did. In this study, the term variance means the amount of difference between the control group and the experimental group. Hence, the students who were intrinsically motivated were found to read 15% more than their peers. Parents confirmed the truthfulness of the students’ diaries and the students’ previous reading and motivation were accounted for (Guthrie & Knowles, 2001). It has been found that the length of time a student is on task and connected with the text correlates directly to achievement gains and improvement in reading (Stanley, 2004).

Reynolds and Symons (2001) found that students who are allowed to self-select their texts have greater competence at information-seeking tasks. In a field experiment, one group of students was given a choice of texts and then asked to answer questions using their chosen texts. Another group of students was assigned a text to use in answering questions. The self-selected reading group was 21% more accurate in their answers (Reynolds & Symons, 2001). This study further suggests a connection between self-selected reading and greater competence and motivation.

Students have been found to be more engaged and motivated with their self-selected readings, even when the readings are for testing purposes. In the Schraw, Flowerday, and Reisetter (1998) experiment, one group of students was given a choice of readings to be tested on and another group was assigned a reading for testing purposes. The group tested on self-selected reading reported that they found their reading more engaging than the non-choice group. The experiment showed a connection between choice and motivation and interest; however, in this experiment the choice group showed no greater test achievement than that of the control group (Schraw et al., 1998).
Concept-Oriented Reading Instruction (CORI) is a reading program, designed by Guthrie and Cox (2001), which supports autonomy and self-selection of texts. The researchers conducted a quasi-experimental study using CORI to see if self-selection of texts fostered motivation and engagement for reading. Guthrie and Cox (2001) compared 12 classrooms (6 using CORI and 6 using regular curriculum), controlling for previous reading achievement and gender differences, and found CORI classrooms to have an effect size of 0.5. An effect size of 0.5 means that the self-selected reading group was found to have higher reading motivation by half a standard deviation over the control group (Guthrie & Cox, 2001).

In Mecurio’s (2005) triangulation of data from a quantitative study of a racially, socio-economically diverse middle school, she found a strong correlation between students self-selecting reading and increased reading amount, motivation, and enjoyment. After one school year of self-selected reading support, students reporting to have negative feelings about reading dropped from 37% to 19% (Mecurio, 2005). The students’ surveys were verified through field notes and interviews, but the study was limited in scope due to the small population polled (just 108 students from the same middle school).

A contributing factor to comprehension is the amount of reading a student has done over the course of his or her life. When other variables are controlled, students who read more frequently are found to have a correlating 5% variance in their reading comprehension or .05 greater comprehension than their peers (Guthrie & Knowles, 2001). This has been found to be the case even in short-term comparative studies.

In a study of a summer program for struggling readers, one group of 6th graders was given 2 hours of self-selected reading, while another group participated in the regular language arts program. At the finish of the 5-week session, the free readers had received significantly higher scores and gains on the comprehension section of the Nelson-Denny test (a nationally normed standardized test) (Krashen, 2006). In longer studies the gains are even greater.

In an experiment, at a Title I school called Hoover high, one group of 9th graders had self-selected reading time over the course of the school year and another group participated in regular education, without self-selected reading time. The two groups of 9th graders were tested at the beginning and at the end of the school year. The 9th graders who were given SSR time were found to have an average of .6 of a year ($t=8.83$, $p<.001$) higher reading scores than their non-SSR counterparts (Fisher, 2004). In other words, it is 99.9% likely that the SSR participating 9th graders made over half of a school year of testable reading gains due solely to their SSR participation. Opportunity to read self-selected texts in school has been suggested as especially important for low-income students. Fisher (2004) points out that the school environment may be the only place where low-income students have access to reading materials and, perhaps, the only environment they inhabit conducive to reading and to making choices about what they read. The success of the Hoover high school experiment with 9th graders seems to support giving low-income students self-selected reading time as a positive teaching strategy.

When Hoover high school implemented the SSR program the total student population’s reading level averaged around that of a sixth grade equivalency (Fisher, Frey, & Williams, 2004). Since Hoover implemented the SSR program the school made the highest gain in San Diego on the API, the states accountability test (Fisher et al., 2004). Two years after the program began at Hoover 88% of students were reading during SSR time, as opposed to around 33% when the program began (Fisher, 2004). This trend demonstrates the heightened motivation to read that students experience when they are given a choice of texts and the opportunity to read. In the examination of self-selected reading’s connection to reading motivation and achievement, SSR programs have been one of the main data resources.

Since Hunt introduced Uninterrupted Sustained Silent Reading (USSR), in 1970, there has been more research on the effects of self-selected reading on achievement and motivation (Yoon, 2002). Yoon’s (2002) meta-analytic study of self-selected reading and SSR experiments, conducted since 1970, found the practice to have a .12 effect on reading attitude, compared to control groups. Yoon (2002) used Hedges and Olkin’s equation to find the effect size. The Hedges and Olkin equation takes into account the standard deviation of both the control group and the experimental group, as opposed to the Cohen equation, which simply accounts for the standard deviation of the control group. The .12 effect size is considered small, but Yoon (2002) points out that reading attitudes develop slowly and the studies reviewed were often conducted for a less than six months. Krashen’s (2006) results were similar when she reviewed ten long-term, (12 months or longer) self-selected SSR experiments and found that in eight out of ten studies the free-reading groups outperformed the non-SSR control groups in language arts activities. There was no significant difference in the other two. The aforementioned studies seem to suggest a need for a review of the classroom strategies employed with struggling readers.
In classroom practice the trend is to give less skilled readers less time with authentic text (Pauson, 2006). This practice increases the disparity of motivation for reading between good readers and less skilled readers (Krashen, 2004). If struggling readers do become less motivated to read, through classroom practices, their reading achievement could be significantly hampered. Stanovich, like many of the aforementioned researchers and educators, associates greater reading volume with a spiraling effect of greater reading achievement and mounting vocabulary growth (Mosenthal, 1999). All of studies cited in this paper, to varying degrees, find that both struggling and competent readers benefit in some regard from self-selecting reading.

Conclusion

The classroom practice of self-selected reading can be viewed as one aspect of the movement towards a more student-centered classroom. One of Dewey’s beliefs about constructing engagement and motivation is that students must be given the freedom to make choices which reflect their interests and experiences (Dewey, 1916/1997). Dewey’s concept of engaging pedagogy supports self-selected reading. Dewey’s imprint can be seen on educators who promote self-selected reading like Atwell and Guthrie. Self-selected reading also draws support from the constructivist tradition. Under Piaget’s constructivist view of education, students must be given the freedom to make their own choices and construct their own meaning (Bringuier, 1980). The major similarity guiding these educational researchers’ practices is that a student’s interest should serve as the means to guide educational experiences. They view the potential to make choices as a great motivator.

The idea that the freedom of choice stimulates motivation may not seem like a radical concept, but the idea contends with current national education policy. The pedagogy of student-centered, self-selected reading is antithetical to the curriculum which aligns with the standards movement (Allington & Toll, 2002). The standards movement, as it is realized by the No Child Left Behind Act, pushes for a nationally cohesive curriculum. The emphasis is placed on texts and lesson plans which align all students’ learning so that growth and academic success across the U.S. may be measured by a singular, quantifiable standard. Reading is treated as a cognitive competency rather than an individualized construction of meaning. If much of the educational research of the last century is to be valued than this prescribed, monolithic concept of education does not warrant merit.

The authors and researchers studying the effects of self-selected reading report disparate findings in regards to the amount of reading motivation and achievement which can be attributed directly to self-selected reading. However, despite variation in effect size amongst studies, every author cited in this paper finds the practice of self-selecting reading to have a positive effect on students’ motivation for reading. In some studies, such as the Schraw, Flowerday, and Reisetter’s (1998) study, the effects of self-selected reading on reading achievement and competence are found to be simply on par with traditional reading curriculum, but the majority of studies find that self-selected reading has a more significant impact on students’ reading achievement (Guthrie & Humenick, 2004; Yoon, 2002). As this paper has demonstrated, researchers and educators have different theories as to why self-selected reading has a positive effect on reading motivation and achievement.

Deci and Ryan (1985) finds that self-selected reading supports self-determination. As students feel that they are in control of their reading and somewhat autonomous in their work, they are more motivated towards their work. McCarthey, Hoffman, & Galda (1999) simply finds that students have more motivation for their self-selected reading because they have a psychological predisposition to expect to like something of their own choosing. Many researchers have found that self-selected reading is simply more motivating because traditional school-endorsed reading is not responsive to students’ identities and interests (Gallo, 2001; Santoli & Wagner, 2004; Walker, 2003). Horner and Shwery (2002) finds self-selected reading motivating as it fosters a high task value. Students are in control of their reading, and therefore they place greater value on the task of reading. Regardless of the theoretical explanation of the effectiveness of self-selected reading, the practice’s positive effect on motivation and achievement is well documented.

In Guthrie and Humenick’s (2004) meta-analysis, self-selected reading was found to have a large positive effect on students’ reading motivation, with an even greater effect on their reading comprehension and achievement. McLoyd’s (1979) field experiments measured greater reading motivation for self-selected reading by comparing the amount of time on task between self-selecting students and assigned reading students. Reynolds and Symons’ (2001) study seems to indicate that students engage in a more thorough and attentive read of self-selected texts, as they are more accurate in information-seeking tasks which involve self-selected texts. Multiple studies have found a connection between self-selected reading and reading achievement by examining improved standardized
test scores (Fisher, 2004; Fisher et al., 2004; Krashen, 2006). Other studies support the effectiveness of self-selected reading by showing that students spend more time reading when they choose their own books (Fisher, 2004; Guthrie & Cox, 2001; Guthrie & Knowles, 2001; McLoyd, 1979). More time spent reading has been irrefutably linked to greater reading achievement and intellectual competence (Guthrie & Knowles, 2001; Krashen, 2006; Mosenthal, 1999; Stanley, 2004). Considering the evidence of these studies, the need for effective classroom reading pedagogy seems indisputable.

For a variety of reasons, students’ motivation to read diminishes with the passing school years (Guthrie & Knowles, 2001; Ivey & Broaddus, 2000; Oldfather & Dahl, 1994; Walker, 2003). Teachers’ observations have aligned with the research in calling for more self-selected reading as a means of combating aliteracy (Guthrie & Humenick, 2004; Ruddell & Unrau, 2004b; Thorkildsen et al., 2002). However, the damming NRP 2000 report robs the pedagogical practice of self-selected reading of institutional support. The NRP 2000 report, shaping the edicts of the NCLB Act, creates a conflict between the findings of teachers who implement self-selected reading and the national education agenda. This is an unfortunate predicament as the NRP 2000 report is faulted and inaccurate. The NRP 2000 report completely disregarded valid research, research which met the panel’s requirement of an experimental analysis (Allington & Toll, 2002; Krashen, 2001). This omission, on the part of the NRP, invalidates the report’s findings.

The faultiness of the National Reading Panel’s 2000 report demands a re-evaluation of national reading curriculum. Read First, the Bush administration’s attempt to nationally fund reading curriculums, is based on the research compiled in the NRP’s 2000 report. As the report made inexplicable omissions of research, it follows that the report’s recommendations must be scrutinized. Richard Allington, who was the president of the International Reading Association for a time, has joined many other reading experts in calling for this action. An impediment to this call to action is the strings attached to federal monies and reading programs (Schemo, 2007).

Reading programs must be supported by the NRP’s 2000 report in order for schools to get Read First federal funding. The Inspector General of the U.S. Department of Education released a damning report on the allotment of federal monies and conflicting interests (The United States Department Education, 2006). The Inspector General found that many of the Read First program recommendations were financially motivated by Read First officials’ connections to the recommended reading programs (Schemo, 2007). If the most effective reading curriculum, which is supported by educational research, is to be employed, then federal monies and recommendations must be free from corruption.

A new guiding meta-analysis and report is needed to continue the conversation on a national reading curriculum. A valid report would need to include all research which undertakes an experimental analysis. At this time it is unclear what recommendations would come from an unbiased report, but, considering the experimental analysis presented in this paper, it seems that self-selected reading may be offered as a tool to combat aliteracy and lack of reading engagement. The inherent challenge in making any kind of national curriculum recommendation is that a singular recommendation does not account for different types of learners. Perhaps self-selecting reading addresses some of the challenges of engaging different types of learners. The practice of self-selecting reading needs to be re-evaluated with its benefits and shortcomings compared to other reading curriculum strategies.

**Recommendations for Practice**

Many of the recommendations which follow from this paper’s research are broad and far-reaching. These recommendations address issues of national education policy and the appropriate allotment of federal monies. This paper has made mention of the challenge to the validity of the NRP findings and the seeming conflict of interest regarding the distribution of Read First monies. The recommendations, which follow from this discussion, include calling for a current and objective meta-analysis of reading research, eliminating conflicts of interest in federal educational funding, and a critique of high-stakes testing, which pushes teachers to spend more time on the coverage of textbooks, while allowing less time for students to read their self-selected texts. While this is a necessary discussion, this author is most concerned with the classroom application of self-selected reading and will save political recommendations for another time. The recommendations which follow are taken from the wealth of research that exists on the practice self-selected reading in the classroom.

Fortunately, implementing self-selected reading in the classroom does not call for redesigning the wheel. There are many self-selected reading programs and classroom applications which have been implemented by teachers and researchers. Teachers have the luxury of choosing between the many self-selected reading program manifestations that have been evidenced to increase students’
reading motivation and achievement. The difference in specific recommendations for individual classrooms depends on the differences between the student populations.

Students who are less proficient readers should be considered prime candidates for self-selected reading. These students are among the most at-risk of losing their motivation to read (Pauson, 2006). Their reading experiences have, often, been marred by low self-efficacy and competency criticisms (Krashen, 2006). Teachers and reading specialists need to buck the trend of giving these students less time with authentic texts. Giving poor readers self-selected reading time has been very successful in improving their reading motivation and achievement (Fisher et al., 2004; Krashen, 2006; Mercurio, 2005). The time that these students spend in a reading resource room, often devoted to phonics and decoding practice, could instead be reserved for self-selected reading. The level of support that students would need to begin self-selected reading would depend largely upon their previous experiences with reading and their age.

Older students, by and large, will relish the opportunity to direct their own education (Deci & Ryan, 1985). Self-selected reading should be utilized by secondary and middle school teachers as means of creating equitable power structures in the classroom. Adolescent and teenage students will value their learning more and be more motivated towards their work when allowed, at least, some control (Horner & Shwery, 2002). Educators should capitalize on this developmentally appropriate desire for self-determination (Deci & Ryan, 1985). Educators and researchers have experienced much success with this age group and self-selected reading (Fisher et al., 2004; Mercurio, 2005). However, simply allowing for self-selected reading time may not be effective in and of itself.

Many students, never having been given the opportunity to choose their own reading, may lack the skills and the self-knowledge key to picking out books that will interest them (Broz, 2003). These students will need extra support in choosing books to read. Teachers who are sensitive and responsive to their students’ lives and interests will have the most success in helping their students select books to read (Ruddell & Unrau, 2004b). Librarian book talks, in which the school librarian gives short summaries of different books, can be used to pique students’ interest and to give them direction in choosing books. The success of this strategy will hinge on the resources available to the library.

School classrooms and libraries need to be well stocked with literature which is culturally and developmentally responsive to the individual student population (Asselin, 2004). Self-selected reading is an effective pedagogical practice, at least in part, because it offers a reprieve from standardized curriculum, which does not account for the diversity of students’ lives, dispositions, schemas, and interests (Gallo, 2001). Self-selected reading will not be very effective if there are not any books on hand which appeal to students (Asselin, 2004). The reality of limited resources cannot be addressed solely by teachers—school wide support is necessary for successful self-selected reading programs.

Making time for in-school reading and possessing literature which is of interest to students should be a priority of administrators. When school-wide efforts support self-selected reading, the practice is very effective towards the ends of reading motivation and achievement (Fisher, 2004). This support is not limited to just having engaging books on hand. Teachers must be supported in giving students in-class time to read. Teachers, often, shy away from giving self-selected reading time because the demands of the state-mandated curriculum are too great (Ivey & Broaddus, 2000). This issue of time management has been successfully addressed through school-wide, self-selected reading time (Fisher, 2004). Aside from making time, these kinds of school-wide mandates value teachers’ and researchers’ findings and students’ needs. Pedagogical practices, too often, ignore the necessity of student engagement and motivation towards learning. The aliteracy, which affects so many school-aged children, can be responded to with self-selected reading. There is clearly evidence to support this assertion. Through implementation, teachers and administrators will only serve to further buttress the practice of self-selected reading as effective pedagogy.

**References**


Poverty in a Cultural Context: Examining the Complex Factors Associated with Poverty and School Success

by Sarah McGreevy

This article shows that there are certain risk factors, which are significantly linked to the likelihood of being a poor child in the United States. These risk factors have been overly relied upon to explain low school success among many students. Several theories have been developed to explain the reasons behind certain patterns present among working class students, and teaching methods have been developed to further combat these issues. Such methods include encouraging teachers to explore their own cultural backgrounds and take non-traditional approaches to teaching, in order to reach a diverse audience. Taking an interest in understanding the implications of poverty and the reasons for its perpetuation allows educators to begin to understand how the affects of poverty can be counteracted.

Introduction

Poverty in the United States is widespread and detrimental in a multitude of ways to the health and well being, as well as educational success, of children in poverty. Children who come from impoverished conditions are at a much higher risk for such things as evictions, illness, being victim to crime, and unfit housing. Because of these disadvantages, many children who come from low socioeconomic families may have to overcome many obstacles in life in order to compete within the educational system (Levin, 1995).

This paper will discuss what poverty is and how it affects children within the institutional setting of school. Across the board children living below the poverty line are scoring lower on standardized tests and are more likely to drop-out of school as well (Edelman & Jones, 2004). The educational status of children with low socioeconomic status (SES) in schools has been alarmingly associated with the fact that they come from poor families. Being financially successful is not the only influence, however, there are many more factors involved in poor test scores and high drop-out rates, such as the lack of access to resources and the presence of emotional distress at home (Seccombe, 2000), as well as the perpetuation of social standards and the lack of cultural capital presented to children from working-class homes (Anyon, 1981).

With the examination of the issues related to poverty, a main focus will be to understand the issue of child poverty as it relates to school success while considering the scale for which child development and academic achievement is being measured. Many theories characterize white, middle-class students as the normative culture for comparison, and by doing so, are determining children in poverty to be at risk in comparison to the dominant class’ standards (Rogoff, 2006).

The historical basis for poverty policies in America will also be examined, as well as how the subject of poverty has been dealt with by the United States government. It will also examine the implications of the effort by the government in the 1960s to address the growing issue of poverty and the resulting policies and programs, termed the War on Poverty. The resulting programs include the Elementary and Secondary Education Act and Title I funding, as well as the government funded preschool program for children in poor families, Head Start (Spring, 2005; Barnes, 2002; Carmichael, 1997).

In addition, this paper will demonstrate the basis for government funding of schools, and analyze the ways in which money is spent. It will further examine the most beneficial areas to spend school funds in order to best accommodate students in poverty who are struggling to achieve academic success. Slavin, 1994 proposes that money which is spent wisely on quality teachers, community programs and culturally responsive teacher training can significantly increase the learning environment for disadvantaged students (Slavin, 1994).

Beyond financial concerns, there are several theories which attempt to explain why so many low socioeconomic students are failing to succeed in school. The Communication Process has been developed for instance, to explain the significant differences in communication styles between cultural minorities and teachers, which pose a problem when directions are misunderstood or actions are misperceived. This theory applies to children in poverty specifically because minority groups are disproportionately more likely to come from working-class families (Battistich, Solomon, Kim, Watson, & Schaps, 1995) and Black children are two times as likely as White children to live in poverty (Edelman & Jones, 2004).

Other theories such as the Deficit Theory, and the Perceived Labor Market Explanation portray
poor students as being trapped in a cycle of poverty. The Deficit Theory is a way of thinking about children in poverty by associating them with abnormality or inferiority by focusing on the deficits and shortcomings of those students (Banks, 2007). In the Perceived Labor Market Explanation it is theorized that the reason minority students often do not achieve success in schools is because they are raised with defeatist attitudes in which they will not be able to escape. Students who experience repeated failure often develop oppositional cultural patterns according to the Resistance Theory, and because of this, they feel even more alienated and fall further behind their peers academically (Erickson, 1987). Yet these theories fail to take into consideration the multitude of factors that play into both poverty and limited success in school.

Other explanations contend that the kinds of curriculum and teaching materials presented to students is based on social status, and children from working-class families are not given access to the knowledge of the powerful class. This limits their ability to break free from the constraints of social class later on in the job market and perpetuates social stratification (Anion, 1981).

By examining the theories behind the perpetuation of poverty among students, we are able to understand to some degree why poverty persists, but the question, then, is what can we do about it? In order to counteract the effects of poverty on a child’s educational achievement, teachers can implement a culturally responsive pedagogy (Ladson-Billings, 1992). Research indicates that if teachers are sensitive to, and aware of, cultural differences among children, specifically those in poverty, subjects become more meaningful to the students. Children who feel valued and understood are more able to structure social interactions as well as conceptualize knowledge (Battistich, et al., 1995).

By keeping in mind the perceptions surrounding poverty, as well as the history, and distribution of school funds, educators can more fully understand the implications of poverty for poor students. As educators begin to understand the affects poverty has on children, hopefully they will be able to use their knowledge about these implications to make a difference in the lives of children who must face a multitude of hurdles in order to achieve the same success as those with more privilege.

**Literature Review**

**History Poverty in America**

Poverty among children has been an ongoing issue throughout American history and is specifically relevant to a child’s interaction and achievement within the school system. The big issue of fighting poverty specifically came to light during the Kennedy and Johnson administrations during the 1960s in the form of the proposal termed The War on Poverty (Spring, 2005).

There are three different perspectives regarding the origins of the War on Poverty as identified by Carl Brauer (1982). The first idea comes from the belief that the war on poverty grew from the rising influence of social science. In contrast, says Braur, the argument could be made that Kennedy launched the War on Poverty to get more black votes during the election of 1964. Thirdly, the onset of the War on Poverty, he explained as being part of the cyclical theory of reform. This theory reflects the impulse the public had to eradicate poverty in an effort for social reform. According to Bauer, the War on Poverty came from a mixture of these theories. To him it represented the marriage between political self-interest and the political culture of the time. He explained that poverty was definitely a partisan issue during the 1950s and 1960s. Democrats pushed for issues relating to poverty, while Republicans tended to avoid the topic. Also at this time, the Democratic Party found itself divided on racial issues roughly along the Mason-Dixon Line. They found more to agree on in regards to economy than civil rights. So as not to antagonize his white electoral base, Kennedy often worded civil rights issues in economic terms (Brauer, 1982; Katznelson, 1985).

It was President Kennedy’s belief that it was the government’s job to solve social and economic problems and he was extremely sensitive to the intellectual currents of the time. Because of increasing demands from the public, he asked Walter Heller, chairman of the Council of Economic Advisors (CEA), to investigate the poverty issue and report back. When the CEA gave its report on poverty it embraced the “Culture of Poverty,” or “Deficit theory.” This theory proposes that poverty is handed down through generations, trapping young people in a cycle of deprivation and defeatist attitudes. The theory gained more popularity after the publication of Gunnar Myrdal’s *American Dilemma* in 1940. The study, based on a sample of poor blacks, showed that poor education restricts employment opportunities, which then cause a low standard of living and so on, forming a cycle (Spring, 2005).

Theories such as these made sense to people as a way to explain the issues of poverty, yet missed an important and potentially dangerous point. The deficit way of thinking tends to hinder the ability of educators to recognize the strengths of children in poverty and many times children in poverty are...
viewed as somehow abnormal, and in essence, equating them to inferior or substandard students. Basing ideas of poverty on such theories heavily influenced the development of definitions, policies and practices of today, in a way that often limits educators’ understanding and ability to work effectively with children from low income homes (Banks, 2007).

The CEA made conclusions from these theories, that mere cash assistance given to the impoverished would not be enough, yet still failed to recognize the underlying problems behind poverty. The report also associated poverty particularly with the South, nonwhites, smaller cities, and the poorly educated as well as broken families, and commented on the increased visibility of poverty in light of recent racial conflicts. The CEA proposed an antipoverty strategy that would be workable as well as popular. At the time Kennedy was assassinated on November 22, 1963, his antipoverty plans emphasized youth and human services rather than income transfers. During Kennedy’s administration, an effort had been made to enact the Peace Corps and an attempt was also made to help Selective Service rejectees. After the death of John F. Kennedy, however, Lyndon Johnson would soon take over these plans, and make them his own. When Johnson stepped up to the presidency, he expressed an enthusiastic interest in continuing ahead with Kennedy’s plans. Johnson had been profoundly impressed and motivated by FDR’s New Deal politics and had actually taught school to impoverished Mexican Americans during the Depression. It was because of his past experience that he felt so strongly about continuing the program. As he took over the War on Poverty he proposed many more programs to help communities gain better schools, healthcare, homes, training and jobs, as well as expansion of youth programs, minimum wage and food stamps. He asserted that the poor must be given the tools to become empowered and lift themselves out of poverty (Brauer, 1982). Much of America’s social ills, Johnson and his advisors believed, could be solved through the betterment of public schools. They saw education as an agent for social mobility and argued that there was a close connection between education and poverty (Jeffrey, 1977).

The War on Poverty was surrounded by great enthusiasm but it failed to sustain the positive effects of its programs. Joel Spring (Spring, 2005) asserted that economic interests were pushed to help the poor enter the middle class. It did not, however, change the economic and social system, which was, in fact the root of the problem. He insists that the effort of the middle class to help the poor had more to do with the reduction of crime, delinquency, and unemployment than raising people out of poverty.

After the War on Poverty programs, such as Medicaid, Medicare, Head Start, Job Corps, and Food Stamps had been developed and implemented, the poverty rate dropped from 22 percent to 12.6 percent. Since the 1960s, however, there has been a steady increase in the percentage of poor children in the United States. By the 1990s, according to official government estimates, 20-25 percent of children came from impoverished households. This translates to roughly one in five children living in substandard housing, with inadequate diets, lacking healthcare and whose parents work long hours with minimum pay (Payne & Biddle, 1999). In 2000 the top one fifth of rich American families received 50 percent of the United States household income and the poorest one fifth received only 3.5 percent, emphasizing a large disparity between rich and poor classes (Educational Resource Information Center, 2002).

Poverty and Its Implications
Factors such as race, gender, family structure, and parental educational levels are all factors which are linked to the likelihood of child poverty as well as low achievement in school. Minority groups are also more likely to live in “deep poverty,” which means having an income of 50 percent of the poverty line. In 1964 the Social Security Administration established the poverty line to determine categories of poverty. It was calculated from the established annual costs of the minimum food budget multiplied by 3 because food was considered to be one third of a family’s expenses, and a similar calculation is still used today (Seccombe, 2000).

Forty years after the War on Poverty was declared, the United States has more poor children than any other industrialized nation. Even though, constitutionally, every person is entitled equal access to facilities and protection from the law, inequalities continue to exist. There is still much separation and inequality between the rich and poor as well as between children of different racial and ethnic backgrounds. Black children, in fact are twice as likely as white children to be poor, and record numbers of black children are living in poverty (Edelman & Jones, 2004). Because black and Hispanic children often experience more frequent and more severe poverty than white children, they are limited by fewer opportunities for improvement (Levin, 1995).

Poverty places students at a large disadvantage in life. Negative life events such as eviction, physical illness, criminal assault, chronic stress, and inadequate housing all have a positive correlation to poverty in children. The decrease in secure, middle-income jobs and falling real wages
only add to the difficulties. The prevalence of divorce is another contributing factor, especially for single mothers. As the result of divorce, women see a decrease of an average of 40 percent in annual income, although men’s incomes may change very little, if at all. In the absence of child support, single mothers struggle to overcome obstacles in achieving economic success, severely limiting the resources available to their children (Levin, 1995).

Seccombe (2000) suggests that the condition of poverty can affect how parents interact with children and the stimulating nature of home environments because of such things as emotional distress due to low and unstable incomes (Seccombe, 2000). These children might experience limited access to books, writing materials and computers as well. According to a report by the National Institute of Child Health and Human Development Children Early Childcare Research Network, those living in chronic poverty have been found to develop “less favorable” cognitive and social development as well as higher stress, and poorer health than those who live in transitory poverty. This judgment is based on current standards as determined by the researchers. The report relates the “less favorable” development to exposure to negative life events and stress can produce psychological distress in parents, which is can be transferred to their children. According to this study, this could lessen a parent’s capacity to provide responsive parenting and increases their usage of coercive and punitive parenting styles. These could, in part, help explain why poor children have more externalizing and internalizing behavior problems upon entrance in school, compared to their middle class counterparts. In addition, children from persistently poor families have been found to perform lower on tests of language and school readiness (National Institute of Child Health and Human Development Early Child Care Research Network, 2005; Bradley, Corwyn, Burchinal, McAdoo, & Coll, 2001).

Some say that an important implication of poverty is that it can critically hinder a child’s chances for success in school. In general poor students do score lower on standardized tests and are less likely to finish high school or attend and graduate college than their more affluent counterparts (Slavin, 1994). Risk factors are often used to explain why children in poverty tend to be low achievers in school. However influential the risk factors may be in determining low achievement by economically disadvantaged children, they have been overly relied upon to explain away the situation (O’Connor & DeLuca Fernandez, 2006).

In a revealing article about the National Research Council’s (NRC) stance on overly represented low SES students in special education, Carla O’Connor and Sonia DeLuca Fernandez, expose the flaws with theories such as the Theory of Compromised Human Development (TCHD). This theory proposed by the NRC, in summary, is composed of four parts. The first of which is that minority students are more likely to be poor. Secondly, being poor increases risk factors in children that ultimately compromise early development. This compromised child development, as proposed by the theory, interferes with school preparedness and academic achievement. Because of these aspects of the theory, TCHD concludes that poor minorities are more likely to be admitted into special education.

The main flaw with this theory, as pointed out by O’Connor and DeLuca Fernandez, is that it fails to take into consideration the scale for which child development and academic achievement is being measured. In the NRC report parenting by low socioeconomic status (SES) families is looked down upon and considered “less than optimal,” causing a depression in child development. The issue with this way of thinking is that parenting by the poor is viewed with negative connotations in comparison to middle-class parenting styles. Because white middle-class status provides the referent, then poor and minority students are destined to demonstrate behavioral and academic problems, and because of such, are referred to special education in school.

By setting up white, middle-class students as the normative culture in a school setting, educators are actually setting up children in poverty to fail. Poor children are determined at risk, and their natural expressions of development are judged according to the dominant class’ standards. In essence, minority expressions are marginalized in an effort to accommodate standards, which are more likely to be nurtured in white middle-class families (O’Connor & DeLuca Fernandez, 2006). In addition, when mature and desirable child development is viewed from dominant standards, it fails to take into consideration the cultural traditions and circumstances of different communities, which shape perspectives and behavior in children. “In each community, human development is guided by local perspectives, which prioritize learning to function within the community’s cultural institutions and technologies” (Rogoff, 2003).

Early studies conducted in the mid-1960s concluded that the connection between low socioeconomic status and low performance on intelligence tests could be attributed to the Deficit or Less-Than Model (Harvard Educational Review, 1979). This theory, like that of TCHD, associated the condition of poverty with deficiencies at home.
including the lack of intellectual stimulation. The Deficit view is often thought of as a product of its time, however it was the basis for many current theories about poverty. The general consensus in poverty research has now grown to include a more complex understanding of the connections associated with poverty (Bempechat, 1998). Yet Deficit theorists have not completely disappeared. Ruby Payne, author of A Framework for Understanding Poverty, has become an influential voice on the topic. Deficit Theorists such as Payne tend to explain social and economic issues by identifying deficiencies in the group being identified, ignoring systemic inequities and stereotypes which contribute to the issue (Gorski, 2006). Theorists such as Payne offer educators simple solutions to explain complex social and school issues. The danger with this stance is that it fails to understand the true complexity of the issue of poverty. By taking this approach, schools deny all responsibility at the school level for the lack of academic success by low-income children, and place the blame entirely on external factors such as individual downfalls (Bohn, 2006).

Based on theories such as the Deficit explanation, why are there any children who come from impoverished families who are able to succeed within the existing school system? Diane Barone proposes the Resilience Theory Perspective to explain this phenomenon. She says that some children are naturally more resilient in oppressed situations than others. According to Barone, teachers actually do have the ability to nurture resilience in students. Teachers can facilitate better resilience in their students by offering them the opportunities to develop personal relationships, a sense of mastery, social competence, reduced stress, and providing community support and resources (Barone, 2006).

School Funding

Affecting students substantially, including student access to resources, is the influence of school funding. Robert Slavin asks the question: Does money make a difference in the quality of education received? Many people, often from wealthy districts, argue that teacher salaries and class size, which are associated with a school’s funds, do not influence student achievement. There has been considerable controversy among educational researchers as well, between the relationship of finance and achievement (Slavin, 1994; Elliott, 1998). Slavin contends that even if money is not clearly linked to academic achievement, all children should be guaranteed access to adequate educational facilities according to the constitution. He believes, however, that there is a link between money and academic achievement, and investigates the issue.

Slavin (1994) found that, for example, there is a substantial relationship between teacher performance on the Texas Examination of Current Administration and Teachers and student achievement, and there is also a link between teacher’s salaries and their performance on the test. By examining the results, an indirect connection between salaries and student achievement can be made. In addition, he found that higher salaries attract and retain better teachers who are more qualified and feel that their skills are valued.

Teachers and students may also benefit from school funding by enabling smaller class sizes and long-term programs for success, such as Success for All and Comer’s School Development Program. In addition, with funding, schools would be able to help teachers learn the latest developments in curriculum and effective motivational strategies through staff development (Slavin, 1994).

Martha Elliott (1998) also looked into the connection between the allocation of public funds and how it affects student achievement through access to what she termed opportunities to learn (OTL). Elliott proposed two hypotheses to explain the connection between dollars and learning. The first hypothesis is termed The Teaching-Effectiveness Hypothesis. Similarly to Slavin’s theory, this hypothesis states that student’s achievement improves when funds are used to hire the most qualified teachers and use the most valuable training programs. In her second hypothesis, The Classroom-Resources Hypothesis, the per-pupil expenditures increase student achievement. This occurs when money is used to purchase equipment such as microscopes and computers to help facilitate learning by offering access to more resources. Of course, schools with limited technology, in addition to receiving government funding, may write grant proposals for more technological access (Duohon-Sells, Cooley, & Duohon, 1999).

In Slavin’s study, information was gathered based on the National Education Longitudinal Survey and the US Census Bureau. 14,868 students from public schools were assessed. Their socioeconomic status, racial background and gender were noted and their achievement on a standardized test called the IRT was calculated. The results of this study showed that expenditures, are in fact significantly related to higher student achievement and that students with more educated teachers with more experience actually achieve higher scores (Elliott, 1998).

The connection between funding and school achievement can be clearly seen from these two investigations. The question then becomes: Which schools are benefiting from school funding and why? To understand school funding this paper first returns
to the War on Poverty officially proposed in 1965 by President Johnson. Under the larger proposal Congress established the Elementary and Secondary Education Act (ESEA) with the main goals ranging from revitalizing the country’s educational system to providing textbooks to schools (Jeffrey, 1977). Title 1 (previously known as Chapter 1) of the ESEA is a compensatory educational program to address the consequences associated with economic equality by providing educational opportunities for children in high-poverty school districts. Its purpose is to give financial assistance to meet the needs of economically disadvantaged students (Barnes, 2002; Carmichael, 1997). Critics of Title 1 have pointed out that the program specifically targets the lowest achieving students in the poorest districts and therefore less than half of all eligible children may be benefiting from these services (Educational Resources Information Center, 2002).

Carmichael (1997) conducted a study on Title 1 services in New York State, during the 1992-1993 school year, showed that 98 percent of school districts in the state received Title 1 funding, as did 80 percent of public schools. This shows a clear majority of the schools receive money from Title 1 dispersal. Because of the high percentage of schools receiving aid in New York State, it would be beneficial to see how it compares to other states. If assessment of other states receipt of Title 1 funds shows similar findings, conclusions could be made that Title 1 funding has become the federal government’s general aid to education, but may not actually correlate to fiscal equality. Perhaps when Congress makes amendments to the Title, public reform will concentrate on reforming public schools and ensuring fiscal equity in terms of actual per-pupil dollars received Carmichael (1997). Supporters of ESEA reform believe it is living up to its capacity to assist low-income children and their schools. One proposal by Neill (2006) suggests that reform can be achieved based on three key factors: “A clear, widely agreed-upon vision of what the law should be; an aroused, mobilized and organized force to support change; and an understanding of the various positions in Congress and what it will take to produce major changes in the law.”

The Disproportionality of Minorities in Poverty

Along with differences in the amount of funding schools receive; a review of several studies indicates that there are extreme disparities among ethnic groups with regards to success in the cultural community verses success in school (Hirsh, 2006). In the self-reported achievement and skills disparities of the Ferguson Study of Minority Student Achievement Network, black, Hispanic and mixed ethnicity students reported that they had lower grade point averages than white and Asian students. Black, Hispanic and mixed students also reported less understanding and comprehension of the material they had been “taught.”

In a similar Ethnographic Study conducted by John Ogbo, many black students reported that they did not view school as a preparation for the future success in the job market, and in fact, did not have any role models who had achieved academic success. Most of their role models were entertainers or athletes because they were more visible. White students in the study thought that the achievement gap was due to social class, but blacks felt it was due to racist practices. In addition black parents felt that children should work hard for good grades but did not see the need to get involved with the school (Educational Resources Information Center, 2003).

Conclusions from these studies suggest the necessity for the community to demonstrate successful role models and increase multicultural perspectives into the curriculum (Educational Resources Information Center, 2003). One could also gather from the results that parental involvement could increase a child’s success in school. Community involvement along with informing parents would place social control in the hands of parents and the community connecting them more closely with issues of reform and awareness of educational issues (Cohen, 1972).

It is the case that children from low socioeconomic status are more likely to belong to an ethnic or minority group. In fact ethnic minorities are disproportionately represented among the poor (Battistich, et al., 1995). It is important not to blur the line between poverty and race or ethnicity, however. Gloria Ladson-Billings, a trained Anthropologist and Teacher Educator, says the phrase the “culture of poverty” is used to describe the pathology of poor students as unsuccessful in school. Child poverty, she maintains, is used as a catchall excuse for low academic achievement. The word “culture,” in fact, is often a code word meaning different than the norm, or deviant, and is additionally a proxy for race.

It is important for teachers to be aware of their influence, and become culturally sensitive in order to reach all students. Culture is not a concept for the exotic, nor is it limited to minorities (non-whites) (Ladson-Billings, 2006). Many disadvantaged minority children accept the educational values of schools but perceive them as unattainable. Others may form groups with anti-achievement values, such as gangs, when school does not meet their needs for belonging and identification. Because of such attitudes and actions, it is important
to reflect on the ways in which teachers and schools are failing poor and minority students as well as ways they can be successful (Battistich, et al., 1995).

It is equally important for teachers to discover their own cultural beliefs and attitudes as associated with their own social class. They should structure experiences and activities that encourage students to look more closely at cultural systems. This means both teachers and students need to be able to understand more fully the implications their own culture plays into their behavior, attitudes and practices. This will help schools more completely accommodate the needs of the children by promoting an understanding of the way that individuals, families, community, school and societal factors interact complexly to create success or failure in school (Ladson-Billings, 2006).

**Methods for Improving Education**

By focusing more attention on the ways in which teachers and school districts can create better learning environments, they will be able to give all children the opportunity for learning and growth. Educators agree that impoverished children are more susceptible to low achievement in school and propose methods such as creating a community, using innovative approaches, offering culturally responsive methods, as well as carefully assessing pre-service teachers (Battistich, et al., 1995; Skeel, 1971).

An important aspect of human development is dependent on paternal warmth and support. For children lacking this type of support at home, it is important for schools to step up to the challenge and create a comfortable, supportive, and accepting atmosphere. This is especially important for children going through stressful and tragic times, including economic hardship (Battistich, et al., 1995).

A supportive parental relationship is very important for any child’s psychological needs. Having a lack of parental support and acceptance in a child’s life can be fulfilled, in some form, by creating the feeling of community within a school (Battistich, et al., 1995). A community feeling gives students a sense of membership, the ability to exert influence, it allows children to share and connect emotionally, and fulfills psychological needs. In addition, it gives them the opportunity for participation and decision-making, and above all fosters trust between students and teachers. When children can form strong attachments with caring and committed teachers, a supportive learning environment can be formed (Power, Dowrick, Ginsburg-Block & Manz, 2004).

The perception of community within the school has large effects on attitudes and motives as well. It has been found that school experience on the whole, is less pleasant and rewarding for poor students and this can be linked with academic achievement (Battistich, et al., 1995).

The traditional response to low achievement meant assigning children to special education classrooms, the use of tracking, and ability grouping (Oakes, 1985; Levin, 1995; Taylor, Pearson, Peterson, & Rodriguez, 2003). This strategy for teaching low achievers is both outdated and ineffective. Although, teachers may be limited by constraining policies, there are methods teachers can use to more effectively reach children who are less successful in school. The use of scaffolding, using supportive actions to guide individuals or groups towards the next level of an independent task, strategy or activity, or using other methods such as heterogeneous grouping, and peer tutoring or cognitive coaching are ways to overcome the downfalls of traditional methods (Levin, 1995; Taylor, Pearson, Peterson, & Rodriguez, 2003).

Strengthening preschool education is another way to assist teachers in reaching students. Providing good quality childcare is critical to a mother’s ability to work or go to school and improve living conditions. This also allows for better preparation for school.

Another way to further benefit disadvantaged and low achieving students is to build links between the school and the community. Parental involvement reinforces school skills and practices especially when there is true mutuality with regard to value and respect between parents and schools (Levin, 1995).

**Conclusion**

Many risk factors exist, which are generally associated with the likelihood of being a child living in poverty in the United States. Such factors include being a minority, having a lack of parental education, and being a child from a single parent home. Children in poverty are much more susceptible to obstacles in their home life that distract from their learning experience in school than are their middle-class peers. These children may experience eviction, illness, crime, stress, as well as inadequate housing as part of their daily existence. In addition poverty can strain parent-child interactions, and children in poverty may feel their parent’s stress (Seccombe, 2000). Poverty can limit a child’s access to resources, such as books and computers. The conditions of the poor may contribute to poor health as well and limit cognitive development, as well as limiting performance on standardized tests (Levin, 1995).

Although risk factors may be mistakenly viewed as the causes for poverty, the risks are often overly relied on to provide simple explanations for
children in poverty performing lower in school. The main flaw with this theory is that it fails to take into consideration the scale for which child development and academic achievement is being measured. By using white, middle-class students as the normative culture for comparison, educators are actually setting up children in poverty to fail (O’Connor & DeLuca Fernandez, 2006). Poor children are determined to be at risk, and their natural expressions of development are judged according to the dominant class’ standards (Rogoff, 2006).

From the early days of the War on Poverty in the 1960s, the government took on an active role in order to attempt to eradicate poverty in the United States. At the time the United States government took on the issue of poverty head on and implemented such programs as Medicaid, Medicare, Head Start, the Job Corp and Food Stamps. The War on Poverty placed a big emphasis on youth and human services and looked to education as an agent for social mobility (Brauer, 1982). The efforts of the programs created a temporary decrease in poverty in America, but the effect unfortunately did not last (Spring, 2005)

In order to combat the implications of poverty on school children, the government has put into place funding programs through Title 1 of the Elementary and Secondary Education Act in order to give low-income schools increased monetary support. Some critics of the programs say that so many schools qualify for Title 1 funding that fiscal equality is not actually achieved.

The discussion of the importance of school funding continued as we addressed the benefits of having increased funds. Not only was it found that schools with more funds have more access to resources such as facilities, equipment, and technology, funds also allowed for smaller class sizes. This is achieved because schools were able to hire more teachers as well as pay for more highly qualified teachers. It has been found that teachers who feel that their skills are valued have more success in teaching as well (Slavin, 1994; Elliott, 1998).

The issue of poor students failing academically does not end with funding, however. Theories have been developed in order to explain reasons for school failure by poor students. The Deficit Model, for instance, was developed in the 1960s. This model associates low test scores with the lack of intellectual stimulation at home. Although, this model touches on some of the issues of poverty, there are many factors that it does not address (Spring, 2005). The Resistance Theory, in comparison, describes failure rates as a consequence of the development of oppositional cultural patterns due to repeated failure throughout the lives of minorities and/or the poor and the Communication Process Explanation maintains that cultural speech networks effect communication and understanding in school (Erickson, 1987).

As we saw in Anyon’s (1981) study of four socially stratified schools, the differences in attitudes towards, and understanding of, knowledge and education were staggering. It was clear from this study that not only was there a difference in the way knowledge was presented to children of varying social status, but those with more cultural and physical capital were given more access to power. Those with less cultural capital were limited in their options and understanding, and therefore the division of labor was reproduced within the schools (Anyon, 1981; Bourdieu, 1990).

Because there are many factors involved in a student’s academic achievement, the research cited in this paper suggests that teachers should take the time to discover their own personal biases and take non-traditional approaches to teaching, in order to reach a diverse audience (Ladson-Billings, 2006). This paper suggests three approaches to reach a diverse audience. The first teaching strategy is to create a community atmosphere. By creating a community in the classroom, teachers can help children feel a sense of membership, connect emotionally, create a feeling of importance as well as gain improved attitudes towards education (Cohen, 1972). Another strategy for improved learning is to use scaffolding. This is an approach in which teachers use guided support in order to help children achieve higher understanding and move to the next levels of activity (Levin, 1995; Taylor, et al., 2003).

The third and most stressed approach to teaching diverse students is called culturally responsive or culturally relevant teaching. This type of teaching uses the culture of the children within the classroom as a basis for lessons and promoting understanding. By associating a child’s home life, perceptions and experiences, as well as other factors, which children can identify with, the teacher can help the student see that the material is relevant to their lives (Statzner, 1994; Ladson-Billings, 1992).

By understanding the implications of poverty and the reasons for its perpetuation hopefully teachers, can understand how its affects on children can be counteracted. When educators can look at the issue as a multifaceted and complex relationship of interwoven components ad can get a bigger picture of its affects. The educational system may not be able to totally eradicate poverty among children, but they can use this knowledge to format strategies so that children who are suffering from
poverty at home are able to feel valued and succeed in a school setting.

**Recommendations for Practice**

**Support School Funding**

Because the affects of poverty can include a limited access to books, writing materials and computers, it is clear that school funding, which can provide children with these essential learning tools, is beneficial especially to these students. By providing children with technological access, educational resources, and equipment, schools are able to more adequately level the playing field. That is, children who come from homes with limited access to educational materials will be able to compete within the school system with their more affluent peers. More funding not only gives less privileged student access to computers and books, it gives schools the means to hire more highly qualified teachers, reducing class size and improving the quality of education children may receive. In addition to these benefits, school funding allows schools to pay for long term after-school and staff development programs (Slavin, 1994).

Schools are able to access funds according to the percentage of economically disadvantaged students within their districts according to Title 1 of the Elementary and Secondary Education Act (ESEA). For schools that do not qualify for Title 1 funding, however, grants are available for schools that need to increase their technological access (Duhon-Sells, Coley, & Duhon, 1999).

**Create Community**

One method for improved education is simply creating the feeling of community within the classroom. By encouraging community within the class, students gain a feeling of membership and emotionally connect with one another, while establishing trust between the teacher and themselves. This is especially important for children whose home life may not include strong paternal support due to economic hardship causing parents to work long hours and worry over stressful jobs (Power, et al., 2004). Fostering a caring community at school has profound affects on the attitudes and motives of the students as well, leading to higher academic success including test scores (Battistich, et al., 1995).

**Scaffold**

Part of a successful approach to teaching children requires reevaluating the current teaching approach and adapting it to fit the needs of the students. Currently the use of tracking and ability grouping is still being used to deal with underachieving students; however it has been proven ineffective and tends to discriminate against poor and minority students and contribute to the class stratification.

In contrast, teachers can use scaffolding to support and guide individuals towards the next level of independent task or implement peer tutoring or cognitive coaching to help academically unsuccessful students overcome the downfalls of traditional teaching methods (Levin, 1995; Taylor, et al., 2003).

**Become Culturally Aware**

Although poverty exists as a societal issue, teachers are able to reduce the negative impacts of poverty on a child’s educational success. Teachers should not take the entire brunt of the problem, but there are ways they can promote greater understanding and encourage self discovery. One way to strengthen one’s own understanding of issues in the classroom, is for teachers to first discover their personal cultural upbringing, attitudes and behaviors (Ladson-Billings, 2006). Once educators become aware of their own biases and individual cultural understanding, they are better prepared to view students within an appropriate cultural context. This cuts down on the tendency for judgments of academic success to be limited to one single culture as the reference (O’Connor & DeLuca Fernandez, 2006).

In addition, teachers should be aware of their own involvement in perpetuating social reproduction in the classroom. By understanding the role of the teacher in the distribution of knowledge and skills to the students, teachers can avoid limiting the cultural capital (cultural codes and rules necessary in order to attain success in school and life) available to working-class students (Aanyon, 1981; Oakes, 1985; Delpit, 2006).

**Use Culturally Relevant Methods**

By offering alternative opportunities for learning, teachers are able to account for the differences between the culture of the school and that of the home. Because students in poverty are disproportionately represented by minority students (Battistich, et al., 1995), it is extremely helpful to use culturally relevant (or responsive) methods to reach them. A culturally relevant pedagogy engages students in learning by adapting the curriculum to fit the specific students. In this way students can identify with and therefore conceptualize more clearly, the information that is being presented to them and become more involved and interested in their own learning (Ladson-Billings, 1992).
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Confronting Systems of Inequality: The Intersection of Bilingual Education and Critical Pedagogy

by Leah Montange

Among bilingual education supporters, two-way immersion bilingual education programs are regarded as highly beneficial. However, the current literature suggests that the two-way immersion model is problematic in practice because of language variation and race, class, and language hierarchies within classrooms. In this paper, the author addresses how the incorporation of critical pedagogy theories and practices into two-way immersion classrooms may serve to alleviate these issues. Several practices, such as a politically clear teacher standpoint, the use of culturally bound curriculum, critical analysis of hidden curriculum, bicultural and cross-cultural teacher development, and the development of student voice can lead to culturally democratic two-way immersion classrooms that serve all students.

Introduction

The United States student population is currently undergoing a major demographic shift as the English Language Learner (ELL) population has dramatically increased over the past 20 years. A large proportion of new immigrants are coming from Asia, Africa, and Latin America, in addition to Eastern Europe (Ovando, Collier, & Combs, 2003). As the number of ELLs steadily rises over the coming years, more and more teachers will need to know how to effectively educate ELLs and support ELL students’ learning.

Despite several decades of research confirming the effectiveness of bilingual education in teaching ELLs, bilingual education remains a very controversial issue in education policy. In this paper, bilingual education programs are education programs in which students learn in both English and their home language, thus developing their academic content knowledge and skills while simultaneously acquiring English. Researchers and educators in the language acquisition field have long held that arguments against bilingual education, known as English-only arguments, are supported mainly by xenophobic sentiment rather than qualitative or quantitative research studies (Ovando, Collier, & Combs, 2003). This paper works from the assumption that bilingual education programs are a valid form of education in the United States and does not attempt to engage in the English-only debate.

There are three major categories of bilingual education programs, including early-exit transitional, late-exit or maintenance, and two-way immersion. Although there are merits and flaws to each kind of bilingual education program, the scope of this literature review is narrowed to two-way immersion. In this paper, two-way immersion programs are bilingual education programs in which students who are dominant in English and students who are dominant in another language are in a class together, each group improving its home language while acquiring a second language. These programs attempt to bridge some of the race and language inequalities that persist in the United States. However, systemic inequalities along the race, class, and language identity axes continue to be reproduced within the two-way immersion model. Critical pedagogy, a body of educational theories and practices that engages in the democratic project of recognizing, critiquing, and transforming systemic inequalities in schools, may provide some insights into creating two-way immersion programs that interrupt the reproduction of systemic inequalities.

Instead of addressing whether or not two-way immersion programs are effective, this literature review addresses how they can be most effective in teaching immigrant students and ELLs who are attempting to learn in environments ridden with racial, class, and language inequalities. Using qualitative and quantitative studies of bilingual education classrooms, essays and books by critical pedagogy theorists, government reports, and literature reviews, I examine efforts to confront structural inequalities in two-way immersion classrooms.

In this paper, I will first provide a brief overview of the policy and research basis for bilingual education in the United States. Next, I will describe the two-way immersion bilingual education model and problematize its approach to treating race, class, and language inequalities. Finally, I will introduce the education philosophies of critical pedagogy theorists and consider how their perspectives can inform the interruption of race, class, and language hierarchies in two-way immersion bilingual classrooms.
Literature Review

Bilingual Education Policy in the United States

The legislative and policy history of bilingual education in the United States begins with Congress passing and President Johnson signing Title VII of the Elementary and Secondary Education Act, known as the Bilingual Education Act, in 1968 (Crawford, 2000; Ovando, Collier, & Combs, 2003; Spring, 2005). This act appropriated funds for bilingual education projects and was reauthorized every four years until the passage of No Child Left Behind in 2002. Ovando, Collier, and Combs (2003) argue that, in comparison to other federally funded education programs, Title VII funding was minimal, even as the number of English Language Learners (ELLs) in the United States increased throughout the 70s, 80s, and 90s (p. 57). Furthermore, even though the original goals of Title VII funding included helping immigrant students maintain their home language and increasing the bilingual resources in the United States, emphasis quickly shifted to increasing the English proficiency of ELLs and viewing non-English home language as a problem rather than a resource (Crawford, 2000; Ovando et al., 2003).

With the Chicano movement’s demand for bilingual education and the 1974 Lau v. Nichols Supreme Court decision, bilingual education became a civil rights issue (Crawford, 2000). The suppression of Spanish became a symbol of racial oppression in the southwest and California, and during the Chicano student boycotts in Los Angeles in the early 1970s bilingual education was a top demand. In Lau v. Nichols, the Supreme Court found that, in the case of students with “limited” English proficiency, teaching only in English without extra support amounted to a civil rights violation. The Office of Education and Office of Civil Rights interpreted Lau v. Nichols to be a mandate for bilingual education and imposed bilingual programs on nearly five hundred school districts through the Lau Remedies from 1975 to 1981 (Crawford, 2000, p. 115). Crawford (2000) identifies the result as “the paradox of bilingual education:” the Lau Remedies resulted in the spreading of bilingual education and the development of successful methods of bilingual education and at the same time promoted a backlash against bilingual education, fueling the English-only movement (p. 116).

In 1997, California voters passed Proposition 227, or English for the Children, outlawing the use of any language other than English for instruction in California public schools, except for in the most extreme circumstances. Since then, similar propositions passed in Arizona and Massachusetts.

The passage of the No Child Left Behind Act in 2002 represents another enormous blow against bilingual education. In what James Crawford (2002a) refers to as “a 180-degree reversal in language policy,” NCLB eliminated Title VII of the ESEA and replaced it with a new Title III, the English Language Acquisition Act, which stresses the acquisition of English rather than the development of bilingualism for ELLs (p. 1). Bilingual education is not outlawed, but the new legislation requires federally funded programs to be backed with “scientifically-based” research, which appears to be a code for English-only, or emphasis on English language acquisition (Crawford, 2002a, 2002b).

Why Bilingual Education?

As policy makers ushered in funding for bilingual education and then shrank back from it, educators and researchers have continued to support bilingual education. The body of quantitative research on bilingual education, while not large, suggests that time spent instructing students in their home language (L1) does not detract from, and may even help in, acquiring a second language (L2) (Ramirez, Yuen, & Ramey, 1991; Reese, Garnier, Gallimore, & Goldenberg, 2000; Thomas & Collier, 1997; Thomas & Collier, 2002). Many scholars have noticed that arguments for English-only education are grounded in emotional assimilationist and xenophobic responses to immigration rather than in quantitative research about the effect of bilingual education on students and linguistic theory about language acquisition (Cummins, 2000; Ovando et al., 2003).

Jim Cummins, one of the leading scholars in the bilingual education and second language acquisition field, developed the theory of Common Underlying Proficiency (CUP), the Threshold Hypothesis, and the distinction between basic interpersonal communication skills and cognitive academic proficiency. These theories indicate that whether a person develops linguistic skills in L1 or L2, one is developing the same underlying proficiency; that it is necessary to develop literacy in L1 in order to fully develop in L2 and experience the cognitive benefits of bilingualism; and that although ELLs may gain conversational fluency within one or two years, it takes approximately six years to gain academic fluency in L2 (Cummins, 1981, 2000). Cummins (2000) notes that research continues to support these theories that he developed decades earlier, suggesting that additive developmental bilingual programs that allow language to be acquired over time, and include...
a strong language arts curriculum for both L₁ and L₂, will yield the best results for ELLs.

**Why Two-Way Immersion Programs?**

The basic characteristics of bilingual education programs are the continued development of L₁, the acquisition of L₂, and instruction in content areas using both L₁ and L₂ (Schooling and language minority students: A theoretical framework, 1981, p. 215). There are many different models for bilingual education, but they fall roughly into three different categories: early-exit transitional, late-exit or maintenance, and two-way or dual-language immersion. In early-exit transitional bilingual programs, students receive content-area instruction in their native language and ESL instruction from kindergarten through first or second grade, with emphasis on transition into mainstream classrooms as quickly as possible. Many scholars see these programs as inadequate and devaluing of ELLs to the point of tracking them into an underclass (Arce, 2004; Ovando et al., 2003; Spener, 2001). Late-exit or maintenance bilingual programs also provide content and language arts instruction in both students’ native language and English, and tend to extend throughout the elementary school years. These programs are aimed at developing the students’ bilingual skills rather than quickly transitioning the students into only using English in class.

Two-way or dual-language immersion programs include students from the minority language and majority language groups in a class together. Instruction is in both English and the minority language, so that all of the students are learning a second language as they develop skills in their first language. In their ongoing longitudinal study of five urban and suburban school districts with bilingual education programs, Thomas and Collier (1997) found that two-way bilingual programs, in which bilingualism is viewed as an additive resource for all students, rather than a low-track for low-status students, are the most promising programs for promoting an additive bilingual sociocultural context. Noted scholar of bilingual education María E. Torres-Guzmán (2002) outlines some of the key linguistic, sociocultural, and pedagogical features of two-way immersion programs (see Table 1). According to the model described in Table 1, two-way immersion programs overcome a number of problems found in other bilingual and ESL program models. For example, the students are grouped together heterogeneously by language, thus providing both language minority and language majority students with peer models and cross-cultural experience, and eliminating the isolation that immigrant students
Table 1. 
Key Features of Dual Language Immersion Programs.

<table>
<thead>
<tr>
<th>Linguistic</th>
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<tr>
<td>• strict language separation</td>
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<td>• equality in language distribution</td>
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<td>• avoidance of simultaneous translation</td>
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<td>• language taught through content</td>
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<td>• whole-language instruction</td>
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<td>• goals of bilingualism and biliteracy</td>
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<tr>
<td>• heterogeneous language grouping</td>
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<tr>
<td>Sociocultural</td>
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<td>• appreciation of cultural diversity</td>
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<td>• culturally relevant teaching</td>
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<td>• development of self-esteem</td>
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<tr>
<td>• mix of language minority with English-speaking students</td>
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<tr>
<td>• cooperative group learning structure</td>
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<td>• parental involvement</td>
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<tr>
<td>• school/community support structure</td>
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<tr>
<td>Pedagogical</td>
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<tr>
<td>• academic achievement for all children</td>
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<tr>
<td>• math and literature following distinct linguistic policy</td>
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<tr>
<td>• developmental level team teaching</td>
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<tr>
<td>• thematic organization of units of instruction</td>
<td></td>
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<tr>
<td>• teachers as monolingual models</td>
<td></td>
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<tr>
<td>• ongoing staff development</td>
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</table>

Note. Adapted from M.E. Torres-Guzmán (2002, p. 2).

frequently face (Valdés, 1998, 2001). Two-way programs are also supposed to provide a sociocultural context in which home cultures are valued as resources for the classroom rather than seen as deficits that must be overcome for the students to succeed academically. Furthermore, because the language majority students who participate in two-way immersion models tend to be from a dominant culture middle class background, these programs are seen as accelerated academic programs and pull in extra funding (Valdés, 1997). In reality, this model might not be strictly followed in all programs that would still be considered two-way bilingual education (María E. Torres-Guzmán, Kleyn, Morales-Rodriguez, & Han, 2005; Wiese, 2004).

Power and Inequality in Two-Way Immersion Classrooms
This ideal view of bilingual education is not entirely unproblematic. Recent qualitative studies have highlighted two interrelated issues of language and power that teachers need to address in two-way immersion bilingual programs: language variation as well as class and race hierarchies among students in a heterogeneous classroom.

The crux of the language variation issue is that students in a two-way classroom might represent more than two language groups, complicating the notion that students are all learning one new language, or that every student’s L1 is supported. Many linguists, sociolinguists, and linguistic anthropologists argue that all variations of a language (for example, Spanish from Mexico, Spain, and Texas) are equally valid as languages (Rubinstein-Avila, 2002). Nevertheless, a hierarchy in the status of languages and language varieties does exist, as standard English is the language of prestige in the United States. This hierarchy of language variations and diversity of languages within a two-way immersion program can lead to the reinforcement of social hierarchies. Ovando, Collier, and Combs (2003) emphasize the need to support students’ home language and the regional diversity of dialects that students speak, explaining that it takes “great sensitivity” on the part of the teacher to understand the full spectrum of language varieties and what is appropriate to teach (p. 167).

Wiese (2004) describes a second grade two-way immersion classroom in which the English-speaking population included both middle-class white students who have “high” academic ability and were raised speaking standard English and working class African-American students who were raised speaking African American Vernacular English (A.A.V.E.). These African-American students were regarded as having strong oral language skills but “low”
academic ability (Wiese, 2004). The teacher in this second-grade classroom expressed great frustration at having to teach standard English to the A.A.V.E. speakers in her class when the program model she was trying to follow only called for Spanish literacy instruction (Wiese, 2004). The school administration in Wiese’s study came to prioritize standard English literacy and bilingualism as the goal for certain students (the A.A.V.E. speakers) in the program and full bilingualism and biliteracy for other students (the standard English speakers). This solution is motivated by concern for the survival and academic success of African-American students but in effect denies them the possibility to profit from a two-way immersion program to the extent that other students can. It reveals a deficit model of thinking about the language variations present in the room: instead of re-evaluating the majority/minority language binary and considering how the program could be modified to promote bilingualism and biliteracy for all students, expectations were lowered for those students who spoke neither standard English nor standard Spanish. The language variation among Spanish-speakers in the class was not addressed at all in Wiese’s study.

Rubinstein-Avila (2002) provides a portrait of a K-8 two-way immersion Portuguese-English public school in the United States with teachers and students of Portuguese, Brazilian, Azorean, and Cape Verdean descent. One of the issues that comes up for the teachers in this program is what variety of Portuguese to teach, with the understanding that Brazilian Portuguese, Cape Verdean Creole, and Iberian Portuguese all need to be supported (Rubinstein-Avila, 2002). If part of the purpose of a dual-language program is to legitimize and support students’ home language, this goal may not be realized in a program where language minority students’ L1 is not one of the specific language varieties that the program is teaching. Rubinstein-Avila (2002) calls for a reconsidering of the minority/majority language binary and space for educators to discuss language variation openly in order to confront ethnocentric assumptions about language (p. 83). She concludes that a “critical look at language” and opening up to the potential of a “transformative” and “emancipatory” experience is crucial to dual-language programs (Rubinstein-Avila, 2002, p. 84).

The second major issue that researchers have noted in two-way immersion programs is the unequal distribution of power among students where some of the class comes from a middle-class white dominant cultural background and others from a working-class bicultural background. Unequal power distribution manifests itself in internalized attitudes among the students, in the actions of teachers who may unwittingly reinforce cultural and class hierarchies through their methods of instruction, and in hidden curriculum that reinforces the supremacy of the dominant culture.

In their study of a second-grade two-way bilingual classroom in Arizona at a time when English-only legislation was being publicly debated, Martinez-Roldan and Malavé (2004) argue that children develop ideological beliefs about language. In this study, Martinez-Roldan and Malavé (2004) determined that a seven-year-old English-dominant Latino boy had internalized negative attitudes about Spanish from his family and society, despite the efforts of his teacher to produce positive attitudes towards Spanish among her students. Wiese (2004) observed that the teacher in her case study had prioritized the needs of certain middle-class white and Latino students. These students were struggling to gain Spanish literacy, and the teacher spent time working on literacy with them every day. Meanwhile, the teacher met with African-American English speakers to work on English literacy every other day and met with the other students to work on Spanish literacy even less. This division of effort on the part of the teacher reinforces the existing class and race inequalities in the classroom, ensuring that those with the most monetary resources continue to receive more of the teacher’s time and effort.

In a study of five novice bilingual teachers in California, Josephine Arce (2004) reported that all noticed the manifestation of deeply rooted class inequality in two-way bilingual immersion programs, despite the professed progressive attitudes and goals of these programs (p. 238). The teachers in Arce’s study consciously challenged notions of equality and fairness by intentionally creating opportunities for the Latino students to participate in the classroom community (Arce, 2004, p. 238).

Valdés (1997) characterizes the problems of power and language inequality in a two-way bilingual classroom as inherent structural problems that flow from the fact that two-way bilingual programs in the United States are designed to meet the very different needs of two populations: middle-class dominant culture students and parents, and working-class subordinate culture students and parents. Valdés (1997) argues that because of the asymmetrical distribution of power, the needs of the language minority students are subsumed by the needs of the majority language student. Therefore, educators must proceed with caution as they try to meet the needs of two (or more) distinct groups, making sure that they do not sacrifice the language minority
students’ needs while meeting the language majority students’ needs (Valdés, 1997).

All this is to say that, despite the best intentions, two-way immersion programs do not automatically lead to the end of inequality: inequality can be and is reinforced through bilingual programs because schools are sites for the reproduction of social stratification and inequality (Cummins, 2000; Valdés, 1997). Bilingual programs constitute a narrow policy solution to a far broader problem, leaving institutions of inequality largely untouched. Many researchers in the bilingual education field believe that the solution lies in critical pedagogy (Akkari, 1998; Arce, 2000, 2004; Cummins, 2000; Martínez-Roldán & Malavé, 2004; Olivos & Quintana de Valladolid, 2005; Rubinstein-Avila, 2002; Valdés, 1997, 1998, 2001).

**What is Critical Pedagogy?**

Critical pedagogy is not a unified, monolithic theory of education. Critical pedagogy theory constitutes a complex body of literature with many voices and different perspectives that can only be partially represented in this literature review. In general, critical educators engage in a democratic project to “recognize, engage, and critique (so as to transform) any existing undemocratic social practices and institutional structures that produce and sustain inequalities and oppressive social identities” within schools (Leistyna & Woodrum, 1996, p. 2). For theorist Antonia Darder, the critical educator makes an “irrevocable commitment to the oppressed and to the liberation of all people” (Darder, 1991, p. 76). Peter McLaren and Juan Muñoz (2000) call for critical educators to “acknowledge the process of disorganized and uneven capitalist development and commit themselves to anti-imperialist struggle against global hierarchies of power and privilege whose chief western guardian is the United States” (McLaren & Muñoz, 2000, p. 26).

Underlying all critical pedagogical theory is the understanding that schools are not apolitical or neutral institutions. In his book *Politics and Education*, the late Paolo Freire states, “It is necessary to truly assume the political nature of education” (Freire, 1997, p. 46). Schools, as miniature versions of society, are often the playing field of conflict, domination, and resistance. One of the key components of critical pedagogy is an understanding of the homogenizing and ideologically dominating effect of imposing a common culture on all people in schools. The cultural landscape is seen as a terrain of conflict of differences in which the imposition of a dominant culture and resistance to the homogenizing paradigm occur (Darder, 1991; Leistyna & Woodrum, 1996).

For critical pedagogists, part of the conflict is over whose knowledge is legitimate and imbued with power. Critical pedagogy theorists reject the universal foundation of truth and instead regard knowledge as in production within a historical context and always related to ideology and power (Leistyna & Woodrum, 1996). Critical educators and theorists call for a critical analysis of who defines and benefits from knowledge as it is constructed (Leistyna & Woodrum, 1996).

For Freire, critical educators must develop concientización, or critical consciousness of the historical and social reality that shapes our lives, and at the same time educate to develop this concientización in students (Torres, 1997, p. 9). Part of concientización is the realization that we are not independent of our sociohistorical context and that we must therefore acquire a critical comprehension of history before overcoming domination and oppression (Freire & Macedo, 1996, p. 220). Teachers facilitate the concientización process and awareness of history through dialogue, or the social process of gaining knowledge through the sharing of experiences. However, Freire and Macedo (1996) warn that dialogue is not simply group therapy or a group conversation in which everyone speaks and says nothing; dialogue is always directed toward coming to an ideological analysis and a political project of eradicating oppressive practices and institutions.

Antonia Darder makes a similar connection between the dialogical sharing of experiences and knowledge and gaining critical consciousness of the conditions of the world students live in. But Darder (1991) notes that “this can only take place if the conditions are created in the classroom for students to speak their own voices and to name and authenticate their experiences” (p. 80). Thus, the notion of voice is critical to Darder’s formulation of critical pedagogy. Darder is especially concerned with the education of bicultural students whose cultures, realities, and lived experiences are not aligned with the dominant culture, and who experience assimilation and racism. She sees the development of voice as particularly critical for bicultural students “given the forces of hegemony and cultural invasion at work in the manner that bicultural students perceive themselves, their communities, and their ability to participate in the world” (Darder, 1991, p. 68).

The development of voice is accomplished through dialogue. As teachers’ and students’ voices are recognized through dialogue in the learning process there is a move away from the opposition of knowledge-imparter with knowledge-recipient towards a mutual relationship in which the teacher
will also learn from the student (Darder, 1991; Freire, 1997; Leistyna & Woodrum, 1996).

It is important to note the difference between critical educators’ emphasis on the recognition of differences of race, class, gender, sexuality, ethnicity, and culture in the terrain of struggle and the liberal multicultural educator’s emphasis on diversity. Most critical pedagogy theorists support the use of multicultural curriculum but caution against what they view as its domestication and misuse (Darder, 1991; McLaren & Muñoz, 2000; Nieto, 2003). Instead of using multicultural curriculum to give a nod to the fact that not all students, or people, are from a white middle class background, a teacher practicing critical pedagogy would use multicultural curriculum to engage students in a process of critically analyzing structures of inequality in society (Nieto, 2003).

What does Critical Education look like in a Bilingual Classroom?

Overall, there has been very little research on the application of critical pedagogy in two-way immersion classrooms. However, drawing from Darder’s (1991) theory of cultural democracy and what little literature does exist, we begin to form a picture of a culturally democratic classroom with teachers that are informed by political clarity and cultural sensitivity.

Darder (1991) develops a critical theory of how cultural democracy manifests itself in a bicultural classroom in order to work toward the liberation of all students. Cultural democracy is based on the principle of equity and the notion that everyone has a right to have an identity, to identify with a culture. Bicultural students, who identify to some extent with a subordinated culture and face hegemonic forces of assimilation and racist oppression, are often denied this right in classrooms that uphold the status quo. Darder (1991) delineates seven important qualities present in a culturally democratic pedagogical practice:

1) Language: Home language is treated with dignity and respect, as a central component of each student’s home culture.
2) Authority: The teacher embraces his or her authority to challenge the status quo and uphold cultural democracy.
3) Redefining Fairness and Equality: The equal distribution of resources is not fair; students from subordinated communities should receive more resources.
4) Use of Multicultural Curriculum: Multicultural curriculum should not be used to uphold the status quo. It should be critically assessed and used to create conditions for students to develop voice. Multicultural curriculum does not replace dialogue.
5) Challenging Racism in the Classroom: Instead of ignoring racism among students, racism must be addressed through critical dialogue.
6) The Culture of the Teacher: Bicultural teachers have a greater understanding of the bicultural development process and dominant culture teachers must work to understand bicultural communities through critical dialogue.
7) Restructuring Public Schools: Schools must be restructured to enable cultural democracy at the classroom and school-wide levels.

Although she does not specifically write about bilingual education or two-way immersion classrooms, Antonia Darder’s work is widely cited and highly regarded among researchers who study the application of critical education principles to the bilingual classroom.

In a qualitative study, Josephine Arce (2000) examines how critical pedagogy is applied in a lower primary-grade two-way immersion classroom in California. The teacher that Arce worked with in this study incorporated many elements of cultural democracy in her classroom. For example, she went through the process of re-evaluating the integration of students’ home culture into the curriculum, choosing a social studies unit that would reflect home culture and provide fertile ground for dialogue (Arce, 2000). The teacher also went through a process of reconceptualizing her voice within the institution of the school and her students’ voices in the classroom. Echoing Darder’s (1991) theoretical work, Arce (2000) reported that dialogue and discussion, with an effort to promote curiosity, empathy, and social consciousness, were key to the development of voice for the students in her study.

Arce (2004) echoed the perspective of many critical education theorists in noting that schools reproduced the ideological beliefs and cultural values of the dominant class and that the “function of mainstream schools is to limit the opportunities for culturally and linguistically diverse students to see themselves as agents of social change” (p. 231). Echoing Valdés (1997, 2003), Arce (2004) also notes that schools are sites for resistance and that, although bilingual education programs are by no means inherently resistant, they do pose the potential for resistance to dominant culture. In a participatory research study of how teachers create resistant, counter-hegemonic conditions in their classrooms
Arce conducted interviews with five Latino teachers in bilingual programs in California; all research participants had indicated a commitment to social justice. Arce (2004) found that “[t]hey have re-conceptualized their identity as intellectuals in the schools working with children who have historically received an inequitable education” (p. 242). The teachers in this study reported choosing “culturally bound” units of study in which the Latino students in the class became experts (Arce, 2004). They also reported turning a critical eye on the hidden curriculum of the school and using textbooks as springboards for critique (Arce, 2004).

Flores-Duenas (2005) provides an inspiring example of a teacher who successfully implements critical literacy pedagogy in her bilingual first grade classroom. Although not explicitly aligned with the tenets of critical pedagogy, this teacher utilizes many of the key concepts of critical pedagogy and cultural democracy in her classroom. Through intense academic expectations and literacy activities, the teacher, La Maestra Miriam, leads her students to engage multicultural/multiethnic texts that promote social consciousness, requires students to share from their life experiences, validates that she can learn from their experiences, and provides a space for voice in collaborative classroom activities (Flores-Duenas, 2005). Miriam communicated that building the literate identities of her Latino students was necessary because they would inevitably be exposed to negative views of their academic ability. She furthermore commented, “I think that we have to make things clear for these kids, otherwise they [second language learners] will have a hard time learning what is valued in this country” (Flores-Duenas, 2005, p. 246).

Other researchers have emphasized the importance of political and ideological clarity among teachers. Edward Olivos and Carmen Quintana de Valladolid (2005), writing from the perspective of critical bilingual educators in the age of NCLB agree that bilingual education is not inevitably emancipatory and that educators must enact critical pedagogical theories. Their view is that teachers must develop a politically clear standpoint in order to advocate for students and transform conditions of inequality in the classroom in order to see the achievement gap as a “concoction of the dominant culture used to justify the subordinate position of Latinos” (Olivos & Quintana de Valladolid, 2005, p. 286). Olivos and Quintana de Valladolid (2005) regard their critical standpoint to be what allows them to reject despair and powerlessness in the age of NCLB.

Jim Cummins (2000) similarly believes that the teacher’s political standpoint is crucial. He argues that, despite research and his theories that prescribe a “best” way to do bilingual education, these are simply surface structures. What is most significant is “what is being transacted in the interactions between educators and students” (Cummins, 2000, p. 49). Cummins (2000) calls for collaborative relations of power between students and teachers that affirm the language and culture of students, involve community participation, and motivate students to create and act upon the world (pp. 46-47).

Weisman (2001) also calls for a look beyond native language input as the key to success for ELLs, arguing that teacher attitude towards language, and the identities of the teachers, effects student success. Working from an understanding of language as a cultural tool and an instrument of domination, Weisman (2001) argues that when L1 is diminished, negative attitudes are internalized in language minority students, making academic success harder to achieve. In her study Weisman conducted semi-directed interviews with four Latina bicultural teachers in bilingual education programs. She placed each teacher on a continuum of language ideology and biculturalism ranging from assimilation into dominant culture and the view that Spanish is only a tool for teaching English, to negotiation with dominant culture and the view that Spanish is an integral part of the cultural identity of their students. Echoing Darder’s (1991) emphasis on the cultural development of teachers, Weisman (2001) finds that bicultural teacher identity along the latter end of the continuum is essential to counteracting the assimilationist slant of many bilingual education programs (p. 222).

Conclusion

Two-way immersion programs often attempt to address systemic inequities along the dimensions of language, race, and class through structural features (Torres-Guzman, 2002). However, some researchers have noted that, despite these structural features, two-way immersion programs in practice may reproduce the race, language, and class inequalities that they are designed to interrupt (Martinez-Roldan, 2004; Rubinstein-Avila, 2002; Valdes, 1997; Wiese, 2004). The reality of language variation beyond the two standard languages of instruction (for example, standard English and Iberian Spanish) and the unequal distribution of power among students (for example, middle class white and working-class immigrant Latina/o) present complications to the two-way immersion model that demand further analysis.
Some of the problems that are seen in two-way immersion classrooms, including the privileging of the needs of dominant culture children, lack of sensitivity to language variation, social conflict around race and class, and the struggle for power can be understood and transformed through critical pedagogy. Critical pedagogy theorists advocate explicit attention to and analysis of inequalities and the reproduction of hierarchies within the classroom and the larger school. The development of voice through dialogue, and the development of critical consciousness through dialogue within the classroom can lead to the transformation of oppressive hierarchies within the classroom (Darder, 1991; Freire & Macedo, 1996).

Critical pedagogy theorist Antonia Darder’s (1991) notion of the culturally democratic classroom, which incorporates the teacher’s firm political standpoint, the critical assessment of all educational materials, and support for bicultural students’ home language and home culture, is particularly useful in working past problems of two-way immersion classrooms. Several researchers and theorists emphasize the importance of political clarity among teachers (Cummins, 2000; Olivos & Quintana de Valladolid, 2005). If maintaining an apolitical standpoint amounts to upholding the status quo, then the development of a critical consciousness and a political standpoint that challenges the status quo is essential for teachers.

There is very little qualitative research on the impact of critical pedagogy on two-way immersion education and no quantitative research studies at all. Individual researchers have made case studies of bilingual education teachers who are committed to critical pedagogy (Arce, 2000; Arce, 2004; Flores-Duenas, 2005; Olivos & Quintana de Valladolid, 2005; Weisman, 2001). These teachers make connections with theory and try to implement it in praxis. Table 2 provides a summary of some of these researchers’ major findings.

Overall, teachers who successfully employ teaching strategies in line with critical pedagogy tend to work towards developing student voice and work from a strong critical stance towards oppressive forces at work in schools. Research on the implementation of critical pedagogy in the two-way immersion classroom is extremely limited and requires further attention in the future.
Table 2. Critical Pedagogy in Bilingual Education Classrooms.

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<td>Arce (2000)</td>
<td>• lower primary-grade two-way immersion classroom in California</td>
<td>• the development of students’ voices through dialogue and discussion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• curriculum units reflect home culture and provide fertile ground for dialogue</td>
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<tr>
<td>Arce (2004)</td>
<td>• five Latina/o teachers in bilingual programs in California. Throughout the study these teachers explore how critical pedagogy can improve their teaching</td>
<td>• choosing “culturally bound” units of study in which the Latino students in the class became experts</td>
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<tr>
<td></td>
<td></td>
<td>• critically engaging the hidden curriculum of the school with students</td>
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<tr>
<td>Flores-Duenas (2005)</td>
<td>• a master teacher in a first grade bilingual classroom</td>
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<td>Olivos &amp; Quintana de</td>
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<td>Valladolid (2005)</td>
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<tr>
<td>Weisman (2001)</td>
<td>• four Latina bicultural teachers in bilingual education programs</td>
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Recommendations for Practices

The importance of applying critical pedagogy practices in two-way immersion classrooms is underscored by the uneven power distribution among students and language groups represented in the classroom. Although there is very little literature that examines how to implement critical pedagogy practices in two-way immersion classrooms and even less research about the impact of critical pedagogy on bilingual classrooms, there are a lot of ideas generated on this topic.

Politically clear teacher standpoint – Teachers who want to implement critical pedagogy practices in their classroom must first and foremost develop a clear political standpoint as teachers about the power structure of the society, school, and classroom (Cummins, 2000; Olivos & Quintana de Valladolid, 2005). Without this critical standpoint teachers will uphold the uneven power structure through their actions. This critical political standpoint can inform all of the teacher’s decisions about curriculum and assessment.

Bicultural or Cross-cultural teacher development – The use of culturally bound curriculum requires that the teachers develop strong bicultural and cross-cultural identities in order to teach the material. Weisman (2001) found that Latina/o teachers with stronger bicultural identity were better able to support their students’ home cultures and their acculturation than Latina/o teachers who were assimilated into the dominant culture.

Culturally-bound units of study – Using curriculum units that reflect and support the home culture of the non-dominant culture students in the
class gives them an opportunity to temporarily flip the status quo hierarchy between themselves and the dominant culture students (Arce, 2004). This gives minority language and non-dominant culture students opportunities for empowerment.

**Critically engaging the hidden curriculum** – As teachers and students begin to develop critical consciousness, they can begin to turn a critical eye to the inequalities embedded in their curriculum materials and in the structure of the school. This might come in the form of analyzing textbooks for bias or critiquing biased practices within the school. Students will develop their critical thinking skills and will be empowered to act based upon their transformed consciousness.

**Developing student voices** – Dialogue is essential to the development of voice and the development of critical consciousness among students (Darder, 1991). Through collaborative activities in which students approach issues of equity, identity, democracy, and justice, students develop their voice and come to realize that they can produce knowledge and have power. The validation of students’ experiences as worthy of critical reflection is crucial. It is also key to emphasize that teachers are not helping students “find” their voice, but are facilitating its emergence.

Overall, teachers in two-way immersion programs, and indeed all educators, need to develop a critical awareness of the race, class, language, and other hierarchies that persist in schools and in their classrooms. Teachers need to work on their own self-development through taking a strong political standpoint against social inequalities and building bicultural or cross-cultural skills. Teachers must also lay the groundwork for student empowerment by teaching students skills for critically analyzing their world and developing their voices. The creation of a culturally democratic and equitable classroom should be the ultimate goal of teachers in two-way immersion programs who wish to support and empower all of their students rather than supporting existing social hierarchies.

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Whole-School Bullying Prevention Programs: The Need for Evidenced-Based Programs

by Joyce Norwood

Bullying is a serious problem in schools. Recent statistics of school-age children who reported being victims of bullying range from 7% to 19% in the United States. There is growing interest in the whole-school approach to prevention of bullying incidents. This paper synthesizes the existing evaluative research on whole-school programs to determine the overall effectiveness of this approach. To date, no single peer-reviewed anti-bullying program has been shown to be effective in every school environment. However, research has concluded that through a combination of improved awareness and assessment of bullying behaviors, improved supervision, and a coherent school-wide anti-bullying plan, bullying incidents can be greatly reduced.

Introduction

Bullying and harassment among school-aged children is increasingly being recognized as an important problem affecting schools. Students have the legal right to be educated without suffering from victimization just as adults have the legal right to a safe workplace environment. If students attend schools in which bullying behaviors are accepted by adults and peers, current research suggests that they will engage in more of these behaviors (Orpinas & Horne, 2006; P. Smith, Pepler, & Rigby, 2004). In addition to contribution to a future cycle of violence, bullying makes school an unsafe place in which to learn and there is also mounting evidence that bullying behavior has long term negative consequences for both the victim and perpetrator.

Historically, bullying and other forms of aggression have been perceived as a normal part of child development and school experience (Rowe, Theriot, Sowers, & Dulmus, 2004). However, with tragic occurrences of school-yard bullying turned fatal, more media attention and resources have been devoted to studying, preventing, and intervening in bullying behavior. As a result of this attention, numerous prevention programs are currently being developed to reduce the prevalence of bullying and to modify attitudes that allow or encourage bullying behavior to continue. Despite the proliferation of anti-bullying prevention programs in the past fifteen years, the effectiveness of these programs is essentially unknown, as evaluations are rarely conducted.

It is important to differentiate whole-school or universal interventions from targeted interventions; a whole-school approach addresses the entire school environment whereas targeted interventions are aimed at individual bullying behavior. Targeted interventions tend to rely on punitive tactics, such as office referrals or expulsions, and ignore school environments that may in fact be encouraging bullying behavior. The whole-school approach is based on the assumption that bullying is a systemic problem and treats bullying as a symptom, aiming to reduce bullying and victimization by changing the school environment. Although the results remain tentative, an emerging approach for effectively addressing school bullying should be “focused upon a collaborative model rather than an expert consultant model” (Orpinas, Horne, & Staniszewski, 2003, p. 442). This paper will define the scope of bullying behavior and give a brief history of early research as well as current anti-bullying policies around the U.S. It will also examine a number of prevention programs, as well as the role of teachers and administrators in creating collaborative and successful whole-school programs. Lastly, it will examine the importance of effective scientific assessment in identifying bullying incidents and the need for evidenced-based whole-school anti-bullying programs.

Literature Review

Prevalence of Bullying and Harassment in U.S. Schools

Current research has shown that aggressive behaviors permeate the school environment. Recent statistics of school age children who reported being victims of bullying ranges from 7% (Devoe, Peter, Noonan, Snyder, & Baum, 2005) to 19% (Dake, Price, & Telljohann, 2003; Nansel et al., 2001). In a joint report by the U. S. Secret Service and the U.S. Department of Education, of the 37 different school shootings investigated, three quarters of attackers "felt persecuted, bullied, threatened, attacked, or injured by others prior to the incident" (Fein & Vosseikul, 2002, p. 24).

Although fatal acts of school violence are rare, ongoing aggression, bullying, and victimization are serious problems. In a survey of nearly 11,000 U.S. 7th, 8th, and 9th graders linking bullying with school
violence, one-third of the victims of long term bullying had aggressive attitudes (Brockenbrough, Cornell, & Loper, 2002). The study also found that the same one-third were more likely than other victims to carry weapons to school and engage in risky behavior. These findings on the negative effects of bullying were also supported by a study in which the objective was to measure the association of bullying and being bullied with psychosocial adjustment (Nansel et al., 2001). The study analyzed data collected from self-report surveys concerning involvement in bullying behavior and being bullied by others. Measures of psychosocial adjustment included questions about high-risk behaviors such as alcohol use and smoking, as well as those asking respondents to rate their academic achievement, perception of school climate, ease in making friends and level of loneliness. From 15,686 students in grades 6 through 10 in public and private schools throughout the U.S., 29.9% of students reported moderate or recurrent involvement in bullying. Of the sample, 13% self-reported as bullies, 10.6% self reported as being bullied, and 6.3% self reported as being both bully and victim. The study also found that those who bullied and those who reported being bullied “all demonstrated poorer psychosocial adjustment than noninvolved youth” (Nansel et al., 2001, p. 2097).

Although the study provides essential data on the frequency and psychosocial correlates of bullying behavior, other important factors were left unaddressed such as social and environmental factors outside the school environment. This study also does not address the long-term effects of bullying, and although longitudinal data remains nominal, the studies that have been conducted show that as adults, bullied students reported higher rates of depression and poor self-esteem than their non-bullied counterparts (Fox & Boulton, 2003; Spivak, 2003). Although recent school violence may be responsible for many of the current studies, previous researchers had come to understand bullying as detrimental to childhood health and well-being.

Defining Bullying Behavior in Schools

Batsche was one of the first American researchers to refer to bullying as a pervasive problem in U.S. schools (Batsche & Knoff, 1994), and was one of the first to separate bullying from other types of aggressive behaviors by acknowledging the imbalance of power. In his study he viewed school personnel responses to bullying as “disappointing” (p. 6) and called on schools to develop “research based” intervention programs (p. 7). In order to initiate effective research-based anti-bullying policies and programs, Crothers and Levinson (2004) find a need to heighten the awareness of students, faculty, and parents to the problem so that bullying can be detected and dealt with immediately. It is also important to differentiate between bullying and normal peer conflict, in which two students of equal status and power get into a fight or argument. Bullying is different in intensity, duration, and includes an imbalance of power between bully and victim.

Scandinavian researcher Dan Olweus was one of the first to address the phenomenon of bullying and the effect it had on students. In his initial research, he described bullying as “mobbing” and defined it as “an individual or a group of individuals harassing, teasing, or pestering another person” (Olweus, 2001, p. 3). Despite his initial work, it took a tragedy in which three adolescent boys committed suicide before school officials in Norway turned their attention to school bullying. After the suicides were linked to “extreme harassment from classmates” (Espelage & Swearer, 2003, p. 365), the Ministry of Education in Norway established the first government mandated bullying prevention program.

As a leading international authority, many current researchers rely on Olweus’ (2003) definition of bullying behavior in which “a student is being bullied or victimized when he or she is exposed, repeatedly over time, to negative actions on the part of one or more students” (p. 12). Although his definition has been debated and subsequent studies on bullying currently include a variety of behaviors, a characteristic which is always present is the imbalance of power (Oyaziwo, 2006). The definition has also been expanded to include “any action taken by a child that inflicts bodily or mental harm on other students” (Leff, Power, Manz, Costigan, & Nabors, 2001) or as the intent to harm another child who is unable to defend him or herself (Smokowski & Kopasz, 2005). Bullying can also be as direct as teasing, hitting or threatening, or as indirect as exclusions, rumors, and manipulations (Bauman & Hurley, 2005; Garrett, 2003). Regardless of a bully’s preferred method, the outcome remains intimidation that results in ongoing humiliation, abuse and fear in the mind of the victim.

Peer Ecology

Further studies have also documented that bullying occurs in a social context and the actions of peers, teachers, other adults at school, family factors, and cultural characteristics are all implicated in the development and continuance of negative behavior (Juvenen, 2005; Orpinas et al., 2003). Researchers have found peer ecology is another important factor that contributes to persistent bullying behavior. According to Philip Rodkin, “[p]eer ecology is that
part of children's microsystem that involves children interacting with, influencing, and socializing one another. Peer ecologies do not include adults, but can affect and be affected by them” (Rodkin & Hodges, 2003, p. 385). Against the backdrop of a socio-ecological framework, bullying thrives in schools where a negative environment and unclear policy allow unacceptable behavior to continue (Leff, Power, Costigan, & Manz, 2003).

Peers as Bystanders

Bystanders are the silent majority within the peer ecology who by inaction give silent assent to a bully’s actions. Canadian studies report that peers are present in as many as 85% of school bullying episodes (Lodge & Frydenberg, 2005). One study, using naturalistic observations of children’s play (ages 5-12), in which aggressive play was noted, found that “during the bullying episodes, 75% of peers’ time is spent in ways that may provide positive reinforcement to the bully” (O’Connell, Pepler, & Craig, 1999, p. 450). Research has also shown that although bystanders often feel “disgust and anger” when witnessing bullying behavior, they rarely take positive actions to stop the behavior (Lodge & Frydenberg, 2005, p. 334). To counteract the effects of negative school environments, including negative peer ecology, there is a growing body of research that indicates a need for whole-school or universal bullying prevention programs (P. Smith et al., 2004; Smokowski & Kopasz, 2005). A whole-school approach is aimed at proactively involving the whole-school community, including pupils, school staff and parents, in the efforts to tackle the bullying. This approach differs from those which rely on punitive measures, such as “time-outs and suspensions” (Juvonen, 2005, p. 40), and those which fail to address the important peer ecology of bystanders; such a reliance on Zero Tolerance policies also ignores peer ecology in an attempt to quell school bullying.

Zero Tolerance Policies

After the Columbine Massacre in 1999, in which it was found that the shooters had been targets of aggressive long-term bullying (Fein & Vosseikul, 2002; Newman, 2004), the development of prevention programs became a priority. Due to the fact that up until the last ten years the most extensive and long term bullying prevention research had been conducted in countries such as England, Norway, Canada, and Australia, there was concern whether international findings could be translated into the culture of American schools. One of the first responses to violence and bullying in U.S. schools was the expulsion based “Zero Tolerance Policy,” which lacked empirical evidence to support its effectiveness (Skiba & Fontanini, 2000). Schools who adopted the policy took extreme security measures, such as installing surveillance cameras and electronic weapon scanners. Although not specifically adopted as an anti-bullying program, Zero Tolerance policies became a catchall for addressing all inappropriate student behavior. In the last few years such policies have become controversial and many schools are looking for less intrusive policies that do not apply “a one-size-fits-all solution” in dealing with bullying behavior (Kajs, 2006, p. 20). Beginning in 2002, new federal regulations and legislation contributed to the implementation and growth of unevaluated anti-bullying programs.

State Mandates and “No Child Left Behind”

The current No Child Left Behind legislation includes The Unsafe School Choice Option, which requires that each state establish a definition of what constitutes a “persistently dangerous” school (U.S. Department of Education, 2002). Students who attend such a school have the legal option to move to a school with a safer environment (Fein & Vosseikul, 2002), which leaves schools designated as persistently dangerous at risk for losing federal funds. As a consequence, many states have hurriedly adopted anti-bullying statutes that are not backed by empirical research. Currently 17 states, (Arkansas, California, Colorado, Connecticut, Georgia, Illinois, Louisiana, New York, Oklahoma, Oregon, Rhode Island, Vermont, Virginia, Washington, and West Virginia) and the U.S. territory of Guam have passed some sort of anti-bullying legislation (Dounay, 2005). The statutes vary widely and lack a cohesive definition of bullying. Three states leave it up to individual school districts to establish a definition of bullying, whereas eleven states have varying definitions that are written into the statutes. Six omit the term “bullying” altogether (Dounay, 2005), and most have no established system to assess the prevalence of bullying behavior.

Assessment and Measurement of Bullying Behavior

Many schools do not keep track of bullying incidents, but there is growing evidence that suggests one of the first steps in establishing a bullying prevention program is to develop an effective assessment program (Crothers & Levinson, 2004). Prevention programs that have been empirically endorsed emphasize a comprehensive approach of assessment, prevention, and intervention (Orpinas & Horne, 2006). The assessments gather both quantitative and qualitative information from children,
teachers, administrators and parents. Currently, self-report scales and surveys are the preferred method of assessment for research purposes and for school personnel to gather information about bullying in their school.

A common self-report bullying scale involves asking students directly how often they engaged in certain behaviors over a specified time period such as the Bully/Victim survey developed by Dan Olweus (Beran & Shapiro, 2005; Pellegrini & Long, 2002). Another is the University of Illinois Aggression scale (Espelage & Swearer, 2003) that asks students to assess name-calling, rumor spreading, exclusion, teasing behaviors and physical fighting, both in themselves and others. With both surveys, answers are summed to create a composite score in which bullies are often identified as those students scoring at the high end of the scale. These same methods are used to identify victims, except that the categorization is based on items related to the frequency of being bullied. Surveys also assess bullying incidents by identifying locations where bullying occurs, who engaged in the bullying, how school personnel responded, attitudes toward bullying, and how effective current prevention programs are perceived by both students and faculty (Beran & Shapiro, 2005; Crothers & Kolbert, 2004; Fekkes, Pijpers, & Verloove-Vanhorick, 2005).

A compendium of assessment tools targeted specifically for U.S. students is published by The National Center for Injury Prevention and Control. The publication includes surveys and questionnaires aimed at gathering data on classroom safety and student aggression levels. It also includes instructions on how to use the data for bullying prevention as well as a reminder that “some of the more standardized instruments may not be culturally or linguistically appropriate for minority populations” (Dahlberg, Toal, Swahn, & Behrens, 2005, p. 10).

In addition to self-report surveys and questionnaires, recent overviews of various bullying assessment methods endorse other approaches for gathering data (Crothers & Levinson, 2004; Espelage & Swearer, 2003) as a primary step in addressing school bullying. With unstructured observations, a site and time that bullying behavior is most likely to occur is selected and bullying behavior among students is recorded. Crothers also cites structured observations in which playgroups are “contrived” (Crothers & Levinson, 2004, p. 497) to examine behavior patterns and interactions between peers in order to measure bullying behavior. Other U.S. studies also cite the need for innovative assessment methods, but in recent years human subjects review boards, mandatory parental consent, and federal funding agencies have placed many limitations and restrictions on the collection of behavioral observations (Espelage & Swearer, 2003). Studies that rely on self-report and questionnaires for measurement of bullying also have drawbacks. While both remain a frequent and accepted method of measuring bullying, individual perceptions of bullying may vary. To minimize subjectivity, students should be provided with a detailed definition of bullying along with relevant examples. Regardless of restrictions related to collecting meaningful data, research has indicated that school administrators, teachers and psychologists need to become aware of the damaging consequences of bullying behavior and work toward creating whole-school interventions (Batsche & Knoff, 1994; S Limber, 2002; Orpinas & Horne, 2006).

Perceptions of Administrators and Teachers

A major roadblock to creating effective intervention programs is the perception educators and administrators have with regards to bullying behavior. In one study, a four-page questionnaire was sent out to 685 U.S. elementary and secondary school principals. The goal of the study was to ascertain their perceptions of the bullying problem in the U.S. and what steps they had taken to address it. Of the 378 that responded, 54 % had themselves received bullying prevention training, but 52% had yet to take steps to address the problem in their own schools or were implementing programs at a snail’s pace (Dake, Price, Telljohann, & Funk, 2004). For school administration to create an effective anti-bullying program, bullying behavior must be reported. In addition, teachers not having a broad enough definition of bullying is cause for concern (Naylor, Cowie, Cossin, de Bettencourt, & Lemme, 2006). Not all teachers agree that exclusions, rumors, or name calling are forms of bullying, therefore it is important that they accurately perceive both direct and indirect bullying behavior (Bauman & Hurley, 2005). One study which examined teachers’ understanding of bullying in their classes highlighted the disconnect between educator and student when classifying bullying behavior (Mishna, Scarcello, Pepler, & Wiener, 2005). The authors of the Canadian study chose four urban schools (grades four and five) of various socio-economic levels and initiated classroom discussions regarding bullying. The students were then asked to complete a Safe School Questionnaire in which they were asked how often they had been bullied. When the teachers were interviewed to ascertain if they were aware of those who felt bullied, of the 17 children who identified themselves as being bullied, teachers were only aware of seven. Researchers attributed the disparity to the teachers’ subjectivity in defining bullying and
posited the best way to understand and solve the
problem was to increase their understanding of both
direct and indirect bullying behavior. This study as
well as others has highlighted the need for both
teachers and administrators to keep abreast of
empirical studies (Beran, 2006; C. Smith, Cousins, &
Stewart, 2005).

Empirical Support for Whole-School Anti-
Bullying Programs
As stated before, until recently there has been a
shortage of studies conducted to examine the extent
and intracies of school bullying in the U.S. A
synthesis of existing evaluation research compared
14 independent studies on the efficacy and
implementations of whole school prevention
programs in North America and Europe (D. Smith,
Schneider, & Ananiadou, 2004). The study found
that despite inconsistent results with regards to
bullying prevention programs, there were “logical
links between programs and theories about the
origins of bullying and in some instances (and under
the most favorable conditions researchers have been
able to contrive) they have been effective” (p. 558).
One common component of the programs Smith
(2004) reviewed was the inclusion of core features
contained in the Olweus Bullying Prevention
Program.

The Olweus Approach
One of the few whole-school anti-bullying
programs backed by empirical research was
developed in Norway by Dan Olweus. It seeks to
educate teachers, other school officials, and parents
about bullying. He describes the keys to the
program’s success as: 1) creating a school
environment characterized by warmth, positive
interest, and involvement with adults; 2) setting firm
limits on unacceptable behavior; 3) consistently
applying sanctions against bullying; and 4) having
adults act as authority figures (Olweus, 2004, p. 22).
His program also has adults closely supervise recess
and mete out consistent, nonphysical punishment to
children who misbehave in aggressive ways. Rewards
and praise are also part of the program. Parents are
encouraged to teach their children to develop and
maintain friendships. The first wide-scale evaluation
of the Olweus program in the U.S. involved 6,388 4th
grade students in six predominately rural schools in
South Carolina. Using self-reports and surveys,
researchers found that compared with control schools
(schools without a comprehensive anti-bullying
program), students in intervention schools reported
significant decreases in bullying behavior (S. Limber,
Nation, & Tracey, 2004). Despite the reported
decrease, Limber and his colleagues cited limitations
to their study. First, in the control group, the self-
reports relied on the students’ own definition and
perception of bullying rather than the definitions
endorsed by the schools implementing Olweus’
program. Second, the schools were not entirely
randomly assigned because the non-control school
was staffed with faculty committed to implementing
an anti-bullying program.

Other Anti-Bullying Prevention Programs
As more states strive to comply with “No Child
Left Behind” legislation, alternative anti-bullying
programs continue to be developed and implemented
in public schools. Unfortunately, the scant indep-
endent evaluation of most commercially available
bullying prevention programs such as “Expect
Respect” and “BullyBusters” remains contradictory
(Espelage & Swearer, 2004). However, the effective-
ness of one such commercial program (“BullyProof”)
was recently independently evaluated to ascertain if
the program would decrease the frequency of
reported bullying behaviors, encourage anti-bullying
attitudes, and decrease pro-bullying attitudes in the
students (Hallford, Borntrager, & L. Davis, 2006).
“BullyProof” was designed to educate elementary
students on the roles of bullies, victims,
and bystanders that exist in bullying situations; it
focuses on preventing bullying behaviors, increasing
assertiveness of victims, and broadening a sense of
responsibility to include bystanders. The sample
included 367 students from an urban Oklahoma
elementary school ranging from pre-kindergarten to
5th grade. Students filled out a self-survey on bullying
attitudes prior to the program’s implementation and a
second survey was administered five months later at
the end of the academic school year. The results
showed that although the frequency of observed
bullying did not change from pre- to post-program,
attitudes admonishing bullying increased (Hallford et
al., 2006). Hallford et al. (2006) attributed the lack of
change in the amount of observed bullying from pre-
to post-program to the possibility of an increase in
awareness of the types of behaviors that constitute
bullying, rather than to an actual lack of behavior
change. Since results were based on self-reporting,
she posited that “as students learned about the types
of behaviors that could be considered bullying, their
broadened definition may have led them to identify
more behaviors”, which then appeared as a lack of
reduction in bullying (Hallford et al., 2006, p. 99).
This study and the previously cited studies illustrate
the need for future researchers to determine students'
preconceived definitions of bullying behavior in
order to more effectively evaluate anti-bullying
prevention programs.
Kathryn Whitted has developed a detailed “best practices” model that lists the essential elements of an effective bullying prevention program. Her multi-level approach includes components at three levels: school, classroom, and student. Her model also includes suggestions such as an anonymous reporting procedures and ongoing training for the entire school staff (Whitted & Dupper, 2005). In addition, because much of the research suggests that early aggressive behavior leads to more aggressive behaviors in middle and secondary schools (Espelage, Mebane, & Adams, 2004; Leff et al., 2001; Orpinas & Horne, 2006), early intervention is stressed. Despite this stress on early intervention, one current study finds that whole-school approaches to bullying prevention are rarely being undertaken in elementary schools (Dake et al., 2004). However, despite the mixed results in evaluating prevention programs, most studies conclude there is an important need to address school bullying and support a whole-school approach to solving the problem (Orpinas & Horne, 2006; D. Smith et al., 2004; Smokowski & Kopasz, 2005). These studies also agree that a successful program is proactive rather than punitive and includes all aspects of school life: environment, administration, faculty, classroom, and individual student.

**Conclusion**

In 1972 Scandinavian researcher Daniel Olweus began the initial research into bullying behavior in schools and developing an anti-bullying program for schools. In 1984, The Olweus Program was first instituted on a large scale in all Swedish schools when it was determined that three adolescent boys committed suicide after persistent harassment and bullying. Since that time other countries have begun to address the issues of violence and harassment in schools, but it was not until after the Columbine shootings in 1999 at a suburban Colorado high school, in which the gunmen were also determined to be victims of constant harassment, that the United States began to make school safety a priority. After the shootings, the Federal government began to publish reports that demonstrated the prevalence of bullying behavior and harassment (Dahlberg et al., 2005) and North American researchers began to look into methods to identify and measure and prevent bullying behavior in schools.

In the United States, research has established that bullying is a widespread and destructive childhood social experience and behavior (Devee et al., 2005; Oyazio, 2006). Current research also acknowledges the power disparity between perpetrator and victim and disputes the once popular belief that it is the responsibility of those bullied to cease the victimizers’ behavior themselves (Crothers & Levinson, 2004; Fekkes et al., 2005). Interventions to counter bullying in schools are now regarded by researchers and an increasing number of educational authorities as an essential element in creating school environments conducive to learning for all children. Although the need for anti-bullying programs has been firmly established, few schools have comprehensive anti-bullying programs in place (Dake et al., 2004; Hallford et al., 2006). One reason is that the U.S. is in its infancy when it comes to understanding the dynamics of school bullying when compared with Europe and other countries (Espelage & Swearer, 2003). Despite the slow start, in the past ten years the U.S. has begun to collect data and develop relevant assessments and measurements with which to implement empirically-based, whole-school anti-bullying programs (Crothers & Levinson, 2004). Although the success rates of anti-bullying programs vary within empirical studies (C. Smith et al., 2005; Swearer, Peugh, & Espelage, 2006), current research concludes that whole-school or comprehensive approaches reduce bullying behaviors measurably.

In spite of the need for consistent anti-bullying policies and the increase in empirical evidence supporting whole-school approaches, teachers and administrators continue to receive little guidance or support to develop and sustain effective programs and federal legislation has only added to the confusion in that states must enact policies before the needs of individual schools can be properly evaluated (Dounay, 2005). Because adults are crucial to implementing successful whole-school prevention programs, community support is also essential. Although there are increasing efforts by school officials, teachers, parents, and students to make schools friendlier and safer places, a reduction in bullying is not always evident (Garrett, 2003; Hallford et al., 2006). Research suggests that reducing bullying behavior requires more pre-service and in-service teacher education that both addresses the negative consequences of bullying and widens teachers’ perception of bullying behavior (Bauman & Hurley, 2005; Beran, 2006; Crothers & Kolbert, 2004).

Studies also show that effective anti-bullying programs require much more than asking one teacher to incorporate an anti-bullying curriculum; rather it requires all teachers, the school principal, students, and parents to become involved in preventing the problem (Orpinas & Horne, 2006). Addressing peer ecology is also an important factor in reducing bullying behavior and creating positive learning environments (Rodkin & Hodges, 2003) because it focuses attention on all students, not just those who
are bullies or victims. Students who are neither bullies nor victims can be part of the solution or part of the problem in that research has suggested bystanders who fail to intervene within the peer ecology can make bullying acceptable to other students.

While the field of research into the dynamics of bullying behavior in schools is becoming larger in the United States, much more needs to be done. Many researchers cite the over reliance on self-report surveys and contrived settings for observational studies as limitations on reliable research. Current research suggests that bullying is a complex interaction between peers, adults, and environment; thus, future research must be conducted using “multivariate methods” (Espelage & Swearer, 2003, p. 379). Studies also have yet to be conducted to include a variety of cultural and socio-economic factors.

Another aspect lacking in current research is school locale. Most peer-reviewed studies have been done in rural locations and it is unclear how the results will translate into schools in urban or suburban settings. Additional research should be conducted to help understand other issues regarding bullying, such as studies to determine if the consequences of bullying in the United States parallel similar research in other countries. Other bullying prevention activities should also be investigated and evaluated to expand the knowledge of effective strategies to reduce the problem of bullying in schools.

Recommendations for Practice

Research has shown that bullying in schools can have serious and long-term consequences. Because students feel unsafe, bullying contributes to high truancy and dropout rates as well as future psychosocial maladjustment (Nansel et al., 2001). A reduction in bullying is paramount to increasing students’ satisfaction with school and increasing every student’s chance for a successful academic career. Current research suggests that a systematic or whole-school approach is the most effective option when creating a program to reduce bullying behavior (Olweus, 2004; P. Smith et al., 2004; Smokowski & Kopasz, 2005). To date, no single peer-reviewed anti-bullying program has been shown to be effective in every school environment. However, for educators and administrators interested in implementing a whole-school anti-bullying program, research has shown there are many essential elements that must be included in order to create a safe and learning environment for all students. Over the years, researchers have concluded that effective prevention programs rely on similar components to reduce and prevent bullying behaviors (see Table 1). Many have concluded that through improved awareness and assessment of bullying behaviors, as well as improved supervision along with a coherent school-wide anti-bullying plan, bullying incidents can be greatly reduced.

Systematic Approach

Beginning with the original efforts in Norway by Dan Olweus, successful interventions have focused on systematic change rather than attempting to change the behavior of a single child, the latter otherwise known as “targeted intervention.” As noted previously, targeted interventions as well as “zero tolerance policies” have little empirical evidence to support success (Skiba, 2000). Conversely, the recommended systematic approach highlights the need for changes in the awareness of and behavior strategies for administrators, teachers, children, and parents. The original Olweus program was part of a nationwide campaign and although the campaign was successful in Norway, attempts to recreate a nationwide campaign in the United States have thus far been less successful (P. Smith et al., 2004).

With the failure of a nationwide approach, researchers suggest the systematic approach begin at the district level, with a needs assessment of the school environment with regards to bullying and safety (Garrett, 2003; Whitted & Dupper, 2005). Full and proper assessments should include information collected with self-reports or surveys from both students and teachers and behavioral observations, preferably from an outside expert (Crothers & Levinson, 2004; Espelage & Swearer, 2003). Another important factor in assessment and program development is input from school psychologists. School psychologists are often in a better positions to assess bullying problems because they are trained to recognize the signs of aggressive behavior and victimization (Smokowski & Kopasz, 2005). After an initial assessment, a district-wide definition of bullying behavior along with a unified code of conduct should be effectively communicated to all school personnel, students, and parents (Orpinas et al., 2003; Whitted & Dupper, 2005).

Teachers and Administrators

Systematic, whole-school anti-bullying programs also depend on teachers to create a climate that discourages bullying. Olweus notes that in subsequent studies, teachers “were the key agents of change with regard to adoption and implementation of the Olweus Bullying Prevention Program in school (Olweus, 2004, p. 32). Teachers and administrators can also create a positive environment by being
Table 1.  
**Characteristics of a Systematic Approach to Whole-School Anti-Bullying Programs.**

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<thead>
<tr>
<th>LEVEL</th>
<th>DESCRIPTION OF CHARACTERISTICS</th>
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<tr>
<td>School/District Level</td>
<td>• Age appropriate student self-survey or questionnaire to assess environment and extent of bullying behavior</td>
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<td></td>
<td>• Faculty self-survey or questionnaire to assess various definitions of bullying behavior and responses</td>
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<td></td>
<td>• Whole-school prevention program based on specific findings and needs of individual school or district</td>
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<td>• Consistent district-wide definition of bullying behavior</td>
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<td></td>
<td>• Ongoing and empirically based pre-service and staff development geared toward bullying prevention</td>
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<td>• Consistent enforcement of anti-bullying criteria by all school employees</td>
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<td>• Effective supervision of students during out of class times by staff and volunteers</td>
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<td></td>
<td>• Ongoing and meaningful feedback from students, faculty and volunteers</td>
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<td></td>
<td>• Make parents aware how bullying behaviors are dealt with specifically</td>
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<td></td>
<td>• Develop resources to assist both bullies and victims of bullying and keep parents apprised of problems</td>
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<td></td>
<td>• Ongoing implementation and evaluation of anti-bullying program</td>
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<td>Classroom Level</td>
<td>• Regular meetings to discuss bullying behavior</td>
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<td>• Student involvement in creating rules against anti-bullying</td>
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<td>• Concepts of power and bullying integrated into curriculum</td>
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<td>• Adults send clear message that bullying behavior is not tolerated</td>
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<td>• Consistent enforcement of non-punitive graduated consequences immediately used</td>
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<td>• Support system created for students who are bullied</td>
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<td>• Open communication with parents whose students are involved in bullying situations</td>
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<td>Student Level</td>
<td>• Both victims and bullies are taught social skills such as assertiveness and problem solving</td>
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<td>• Bystanders are taught skills to intervene to help students who are bullied</td>
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<td>• Bystanders are taught skills that discourage bullying behavior in others</td>
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<td>• Pro-social behaviors are immediately reinforced</td>
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<td>• A confidential reporting system is in place</td>
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*Note.* Adapted from Beran, (2006); Dahlberg et al. (2005); Leff et al. (2003); Lewis-Palmer, Flannery, Sugai, & Eber (2002); Olweus (2004); Smokowski & Kopasz (2005); Whitted & Dupper (2005).

Positive role models in both academic and social relationships (Garrett, 2003). Given the importance of teachers in cultivating a collaborative and respectful classroom environment, effective classroom management, and appropriate responses to children involved in bullying, training should not be left to chance. Teachers and administrators should have access to current and empirical-based information in order to address and minimize bullying behaviors in the classroom. Districts should also make funds available for in-service trainings dedicated to resolving bullying and safely issues. Since studies have shown that teachers have a tendency to under report victimization, in-service trainings would help them become more aware of bullying behavior and intervene early before bullying becomes a part of the larger school environment (Bauman & Hurley, 2005; P. Smith et
al., 2004). Many teachers do not feel prepared to intervene in bullying situations. Pre-service teacher training programs need to be developed in order to inform future teachers of the complex social dynamics involved in continued bullying behavior. In addition, pre-service training would allow teachers to create an awareness in the classroom of the social and emotional consequences of prolonged victimization (Beran, 2006).

**Peers and Bystanders**

Recognizing the role peer ecology plays in persistent bullying behavior is important to developing a systematic, whole-school approach. Creating a safe environment requires schools to cease treating bullying as an individual problem and instead treat it as a “collective” problem (Juvonen, 2005, p. 39). Juvonen also suggests that schools adopt a declaration of the rights of individuals as well as a school-wide statement of social responsibility. Both these suggestions take the onus off targeted intervention and instead help to change behaviors in all students. Teachers should also discuss the importance of bystanders in stopping bullying. Students should be taught that they have a responsibility to intervene if they observe someone being bullied at school. Bystanders need to be taught how their behaviors can either support or discourage bullies and programs that teach bystanders to recognize and report bullying have the greatest impact on reducing bullying (Rigby, Smith, & Pepler, 2004; Whitted & Dupper, 2005). Bystanders can be taught how to intervene to help victims. For example, bystanders can be taught to stand up for the victims, include victims in group activities, and to report bullying to adults (Whitted & Dupper, 2005).

**Parents**

Parents are also essential in addressing bullying problems at school. Parents of victims are often aware of their children’s distressing experiences long before the school is (P. Smith et al., 2004). If the teacher has established open communication with the parents, they can raise concerns and participate with teachers in finding ways to support their children. Parents of students who bully are also important to a successful program; however, they may not be as easy to engage in open dialogue (Fekkes et al., 2005). More research is needed to develop effective communication with the parents of students who bully in order to make them a more essential part of a successful anti-bullying program.

**Further Research**

Additional research should be conducted to help understand other issues regarding bullying, such as studies to determine if the consequences of bullying in the United States mirror consequences in other countries. Little research has been conducted with regard to the cultural or gender aspects of systematic anti-bullying programs. Other bullying prevention activities should also be investigated and evaluated to expand the knowledge of effective strategies to reduce the problem of bullying in schools.

**References**


The Effects of Music, Rhymes and Singing on the Classroom Environment

by Jana M. Ortis

Discussed are the effects of music, singing and rhyming in the classroom, starting with an historical overview of music and singing and continuing with a discussion of the physical, emotional and social effects of music on students and their environment. Music has been tied to emotion, and emotion is an integral part of long-term memory and retention. It has also been used as a tool of language and to create a low-anxiety means of participation. Music has a profound effect of the alteration of moods. Though there is some disagreement on the effects on ADHD students, there is agreement that music is beneficial to children. Strategies to be used with English Language Learners and practical implications are also discussed.

Introduction

When many of us think of the ABCs, a familiar melody pops into our head. With the use of that melody we were able to memorize the letters of the alphabet at an early age. These twenty-six letters have no apparent relation to each other, but with the use of music, the letters were ingrained into our long-term memory making them easy to recall at a later date. How many of us still use the rhyme “Thirty days has September, April, June and November…” to recall which months have what number of days, a task that could be rather difficult if it weren’t for the use of rhythm and rhyme? These are just two examples of using music, rhyme and song as a means to cement information into the long-term memory of students.

Although the number of quantitative research studies about the effects of music and singing in the classroom is limited, there are a few case studies from current educators showing its wide usage as an effective instructional tool for many years. As far back as 1927, researchers like Max Shoen and George Knapp have been looking into the effects that music has on individuals, and more recent studies have been done on the effects of music on spatial reasoning. Though some of these studies, such as the “Mozart Effect”, have had their controversies, the effects of music on memory and as a mood moderator have been widely accepted.

Music and singing have been used in classrooms for years. Music has been tied to emotion, and emotion is an integral part of long-term memory and retention. Music has also been linked to mood, creating a quiet or enlivening environment for students. It has also been used as a tool of language and to create a low-anxiety means of participation in classes.

This is an intriguing topic for continuing research. Though little investigation has been done on the implications of music use and singing in the classroom, this line of study could be very advantageous to future educators. Children like music; they have a strong emotional response to it, especially prevalent in early elementary students. Think of the enthusiasm that children radiate when they hear their favorite song. Consider how quickly a small child can learn complicated lyrics with relative ease. Can you recall the lyrics to a song that you haven’t heard in years?

Literature Review

Historical Overview

In Laws, Plato discusses the effects music has on the mind. He describes how a mother will rock an infant and sing a melody to calm the baby. As Plato shows, the effect of music on the mind has been an issue of interest for many centuries. According to Plato, music makes an individual a complete person (Rouget, 1985).

Years later, talk of the effects of music remained in the forefront of minds of highly respected men. Saint Augustine, during the rise of the Catholic Church, was in the midst of a hot debate about music in the place of worship. He believed that music was a sensuous experience and would cloud the mind and subtract from their worship of God. He also acknowledged, however, the positive effects of music on the mind. He recognized that music could be used as a catalyst, to push those of weak faith to become stronger believers (Seaton, 1991).

Debate in the Church would remain a fiery debate for years, until the Catholic Church realized the power of music. Not only could the singing and reading of music engage the senses as an educational tool, it could also serve a practical religious purpose (Sloan, 1990). Music was found to make memorizing Psalms inherently easier. With the use of melody and rhythm, memorization and recall of Bible verses was easy for everyone, regardless of literacy. It also made the Psalms more relevant and
meaningful to the parishioners, invoking emotion related to the passages.

The Effects of Music and Singing on the Brain and Body

“We tend to think of music only in cultural or artistic terms, but scientists have found that music is a highly complex neural activity” (Wolfe, 2001, p. 160). Sound waves come into our ears and are transformed into nerve impulses by the Organ of Corti in the cochlea. From there the impulses are sent out to specialized areas in our left and right temporal lobes for processing. The functions used to process music and singing are deeply knotted in the brain’s other functions including emotion, memory and language (Wolfe, 2001).

There are over 100 billion unconnected or loosely connected neurons in the brain. With each experience of a child the links and pathways between neurons are strengthened, creating a network of experiences that are easy to recall at a later date. Researchers believe that music and singing can lead to long-term changes in the brain’s hard wiring (Viadero, 1998). Recent studies have also shown that music affects both the left and right hemispheres of the brain. As Wolfe (2001) points out in Brain Matters, music is not just a property of the right hemisphere as many scientist had thought in the past; new imaging techniques have revealed music is dispersed across specialized areas in both hemispheres. “Many musical experiences can activate the cognitive, visual, auditory, affective and motor systems, depending on whether you are reading music, playing an instrument, composing a song, beating out a rhythm, or just listening to a melody” (Wolfe, 2001, p. 161).

While researchers are still verifying many of the major hypotheses about the connection between music and learning through use of tests like EEGs (electromagnetic encephalograms), PET scans (positions Emission Tomography) and MRIs (magnetic resonance imaging), they have found that music “strengthens the auditory cortex of the brain which is where most learning difficulties originate” (Habermeyer, 1999, p. 168). This is another encouraging implication for the use of music and singing since the auditory cortex is one of the areas of the brain recognized for language development and memory.

According to Page (1995), researchers are learning about interesting new powers attributed to singing and music, “powers that can enhance education dramatically” (p. 8). It has been found that certain types of music can alter brain wave patterns, resulting in slowing down or speeding up of brain activity (Wolfe, 2001, p. 164). This can affect the classroom and the environment in many ways. Music can revitalize children, charging the brain, “energizing it like a million-volt battery” (Page, 1995, p. 37). Singing, in particular, encourages deep breathing. This brings more oxygen to the brain, which can invigorate students. This type of invigoration has been said to have the same effects that recess has on children, with fresh air and plenty of yelling and shouting. This can help to enliven the classroom and keep the kids awake.

Music can have a calming effect on the classroom as well. Using calming music, like orchestral and classical music, in the background may be great for calming and soothing kids, especially after rigorous physical activity. Some researchers say it also has positive implications for kids with ADHD, centering them and helping them concentrate, which would be beneficial to the student’s academic progress. Some studies, conversely, have shown that music can add unnecessary sensory stimuli that can further distract ADHD children (Mulikin & Henk, 1985, p. 106 & 115). These studies are only preliminary, however, and more research is needed for a definitive answer. As well as its effects on the students’ moods, teachers can also use humorous songs to add a warm welcoming atmosphere which could decrease negative behavior (Campbell, 1996, p. 133).

Music and music making are also important in coordinating the two sides of the brain and in coordinating the body. Lloyd-Mayer & Langstaff explain this by stating, “Children in almost every culture of the world do repetitive singing games involving jumping, skipping and running.” This added coordination aids skills like handwriting due to the rhythm/movement activities that accompany singing in young children” (1999, p. 39). And according to Campbell (1996), “[t]he rhythm and flow of music can result in increased coordination, regularity, and speed of the activities in enjoyable ways” (Campbell, as cited in Lloyd-Mayer & Langstaff, 1999, p. 142). And “by coordinating the rhythms of sound and movement in stories, song and poetry,” children’s imaginations are captivated and the subject matter is made more vivid and meaningful (Easton, 1997, p. 89). When the subject matter is made more meaningful children are engaged in a fun and entertaining way; in lessons using their own voices and bodies, they participate more in their learning and construct more meaning from these experiences.

Music and Emotion

The emotional impact of music on the brain is well documented. Robert Zatorre (1999) used PET scans to examine cerebral blood flow changes related
to affective responses to music. He found that the areas of the brain involved in processing emotion “light” up with activity when a subject hears music (Blood, Zatorre, Bermudez, & Evans, 1999). The emotional response to music releases serotonin, causing the serotonin level to rise, producing a stress relieving effect on the students allowing them to be more receptive to learning. When the emotional response is involved with experience and learning, the information received is stamped with extra vividness, which creates stronger memories that are easier to recall. According to Wolfe (2001), “[e]motion drives attention, and attention drives learning” (p. 86). If students are not paying attention, they are not engaged, and they are not learning.

A study by Schoen and Gatewood (1927) of 20,000 participants of varying cultures indicated that music not only produces a “change in the existing affective state of the listener, but that its effect upon the large majority of the members of an audience is uniform to a striking degree” (p. 131). Though this study was conducted a long time ago and has its flaws, it is of utmost significance that even a most superficial examination of the data from the 20,000 charts, obtained in adverse conditions, points to the influence of music on moods and emotions (Schoen & Gatewood, 1927). The study showed that over a period of days, and at different times of day, the subjects recorded similar responses to the music without any reference to the previous program and its results. Since such a high percent of the hearers recorded the same effect as in their earlier hearing, this evidences the fact that the music actually arouses a definite effect. But the study shows that no two people are affected exactly the same by any stimulus. However, a given musical selection will arouse a certain definite reaction and will arouse the same reaction on different occasions. Taking into account the errors of the previous study another study was performed, wherein the research had similar results (Schoen & Gatewood, 1927).

Because of the strong connection between emotions and music, music can be used to create a positive, meaningful, and emotional environment, which will enhance the learning process. Campbell (1996) elaborates on this by saying that singing songs not only helps many students remember important information, it also enlivens classroom learning. This may explain why information learned through singing is retained longer and recalled easier. It may also explain, according to researchers, the fact that elderly people can still remember songs they learned in their early childhood (Habermayer, 1999; Wolfe 2001).

The Effects of Music and Rhyme on Memory and Recall

Wolfe (2001) stated that, “[t]here is little doubt that when information is embedded in music or rhyme, its recall is enhanced. People can typically remember lyrics of tunes and rhymes, but are much less successful in recalling prose passages” (p. 162). Page (1995) further emphasized this position by adding that children learn lyrics much faster than they can learn cold facts, which points to the benefits that singing and music have on the retention of course materials.

The use of song lyrics containing curricular information can be a very useful instructional device. It is generally easy for most students to memorize the lyrics of songs, and most students will find it just as easy to memorize the curriculum if it is set to music or rhyme (Campbell, Campbell, & Dickinson, 1999), a practice that can be profitable for both elementary and secondary students. Page (1995) prompts us to remember that most of us effectively learned the alphabet while singing the familiar ABC song. He also informs us that teachers are making great choices in allowing kids to learn and benefit from instruction using music and song, poetry and rap.

Through the use of songs, rhymes and music, children are able to retain much larger amounts of information. A five-year-old child can typically work with a mere two bits of information on a conscious level. But nearly all Kindergarten kids can recite the ABC song, which has 26 bits of information that have no natural relationship to one another, other than the musical accompaniment (Wolfe, 2001). This use of music and song to help young children learn and retain information can also be used as a natural opening for that information. A child who is unable to sing the words to the song can, at first, simply hum the tune and pick up words as they go along, or take part in any movements associated with the song (Young, 1998).

Many scientists believe that language and music are intimately linked and share some of the same neural circuits; therefore music, or rhyme set to music, has the clear advantage when it comes to recall. It is becoming a more common practice amongst teachers to use this natural inclination of the brain in creating educational activities that will enhance retention of certain kinds of information. This discovery will not astonish parents who have experienced their children’s ability to quickly learn songs, nursery rhymes and other rhyming games (Wolfe, 2001).
The Use of Rap Music and Piggyback Songs in Cultural Development and to Enhance Learning

An emerging technique of curriculum delivery has been to use rap: a form of music that is meaningful and potent to many youth today. The cultural aspects of rap help to connect the material to students with different cultural and socioeconomic backgrounds, which is especially potent in K-6 classrooms in promoting literacy skills (Knabb, 1999). Morrell and Duncan-Andrade (2002) agree with this, finding that the use of rap and culture can create meaningful context for the student, centering the curriculum more around the students’ interests and less around route memorization. This approach allows the material to access the student’s schema, making it relevant and meaningful. Rap music has also been used to “transcend the racial divide and allow us to tap into the students’ lives in ways that promote academic literacy and critical consciousness” (Morrell & Duncan-Andrade, 2002, p. 88). The lyrics in rap music and hip-hop are also rich in imagery and metaphor and can allow teachers to help bridge the gap between home-life and school-life (Morrell & Duncan-Andrade, 2002).

Piggyback songs (songs that use a familiar melody with new lyrics) are another example of ways in which teachers are using these scientific findings to help their students. Piggyback songs, much like the ABC song, are used to enhance the learning by adding a second sensory input. There are numerous songs that children can sing to help them to remember information. Take this song for example:

Stop, stop, stop the words
With a little dot.
Use a period at the end,
So they’ll know when to stop.

Using the melody of Row, Row, Row Your Boat, this song allows beginning readers to access easily recalled information about punctuation (Wolfe, 2001, p. 166). This can be used for most aspects of language. For instance, remembering spelling words is a lot easier if they are sung to a familiar tune. Try using the tune Happy Birthday to You to help remember how to spell six-letter words. These songs are especially useful in foreign language classes and for students or programs with bilingual students. Not only are these songs beneficial to the student’s academic performance, they also help to liven up the class, especially when teachers encourage made up songs and silly rhymes that repeat and ingrain information that was already taught (Wolfe, 2001). In fact, these songs are the most effective when the students are involved in creating them, making the material more personal, with a higher emotional attachment. Cockburn (1991) also chimes in on the benefits of this type of music creation and offers that a “song written by students in a classroom has value to his own community because of the shared effort in its creation and the familiarity of the subject matter to others in the community” (p. 72). In other words, students will value the song more since it was created by them and their peers, creating a learning community.

Music, Multiple Intelligences and Language

While researchers continue to solve the ambiguities of the brain, we do know that different children may be more successful learners depending on the teaching style used. Tapping into different forms of intelligence that students possess will help educators optimize learning opportunities for their students. There are many types of intelligences, according to Howard Gardner, author of Multiple Intelligences (1993). He believes that people possess enhanced intelligences in eight areas that consist of: bodily/kinesthetic, intrapersonal, interpersonal, spatial, mathematical/logical, verbal/linguistic, musical and naturalistic intelligences (1997). By using these different types of intelligences, different students can learn the material more intimately, allowing deeper learning to occur (Gardner, 1993, 1997). Not only does music and singing engage different types of learners, but kids love to sing, and that is a great motivator for students as they learn new words and improve language skills (Cockburn, 1991).

Learning letter sounds, phonemic awareness, understanding syllables and practicing rhyming can all occur through music, rhymes and singing, extending vocabulary through activities that encourage an interest in words (Bearne, 1998). Students can investigate replacing words from tunes they already know to create their own original songs. This practice is especially effective for primary-aged children because these exercises, in particular, help young students to develop their emerging language skills (Cox & Boyd-Batstone, 1997). Creating new lyrics and setting them to music is also a productive way to learn to manipulate and combine words and sounds to form new words. As John Smith (2002) writes in his article “Teaching Reading”, the “popular traditional song Ooples and Boo-noo-noos gets kids to create silly new words as they substitute the five long vowel sounds into the words I like to eat, eat, eat apples and bananas” (p. 646). Jane Edden (in Bearne, 1998) notes the importance of providing students with opportunities like this, for experimentation in playing with sound and language, which can create an increased vocabulary and language awareness. “By encouraging children to
search and find the ‘right’ word (in their eyes) to describe any given sound or sound experience, we are opening up the possibilities not only of increasing their vocabulary but of helping them find ways of expressing themselves in an imaginative and unrestricted way” (Bearne, 1998, p. 141).

Music and the Impacts on Creativity and Language
Using music and song is a powerful way to tap into the imagination and creativity of every child and allows them to personalize what they have learned in a way that they can recall and benefit from in the future (Pascale, 2000). To create a firm basis for acquiring new language skills the students can sing songs while the teacher points to the words on an overhead projector or large flip chart. This provides an activity that students enjoy and is rewarding. In addition to strengthening oral language skills, it helps to promote reading competency. According to Smith (2002), when the teacher points to the letter on the ABC song chart while the students sings, it helps the students establish a visual representation of each letter and creates awareness of them. Children no longer think there is such as a letter as “lmnop” after they have participated in this activity. This is a powerful tool in allowing children to understand language, first as spoken word, then as written word, all while having fun.

Music, Multiculturalism, Language and English Language Learners
Children experience a variety of emotions as a result of participation in singing. It encourages self-expression, helps teach phrasing and offers additional opportunities to practice communication skills. As a result, language development is influenced positively through this activity since singing becomes a natural way to complement other learning activities such as writing and reading. This technique lends itself especially well to younger children and English Language Learners because they are just beginning to learn letter recognition and words in the English language. This method helps them by contextualizing the information being taught as well as offering the instruction in a low-anxiety setting. This strong relationship between oral literacy and vocal music creates multiple opportunities for children to hear language use in the whole spectrum of their lives, in and out of school. These experiences from family and society should be included in the role of literacy development to advance language learning. Failing to do so ignores the rich culture and environment that a child brings to the classroom (Dyson, 2003; Ovando, Collier, & Combs, 2003)

Teachers who seek multiculturalism in their class, will seek it in the music they play in class and to their students as well. Victor Cockburn (1991) states that since many classrooms are composed of students from many varying cultures, exposing all of the children to different cultures and varieties of music and songs will create a “common thread of expression that takes on another dimension” (p. 77). Along with this technique, another way in which to promote a multicultural view amongst students is to have the students bring in favorite songs of theirs, or their parents and/or grandparents. This will allow the students to feel connected to the classroom community and create a safe and encouraging environment that honors their culture and tradition. This also values a child’s first language, which is opening an door for bilingualism in the classroom. This method of instruction is especially potent in the bilingual or ELL classroom where songwriting expands the function of helping students learn each other’s languages (Cockburn, 1991). Singing can be a potent learning tool for these students as it draws them into culturally significant learning situations while they are advancing their English language skills.

Music Across Curriculums
Music is a way to learn about other countries and cultures. By listening to a culture’s music, students are provided valuable insights into their principles. Using this approach, music can enhance learning throughout the curriculum. Music is an integral part of any time period; thus it becomes an effective way of looking into that era and identifying the values and attitudes. As a result, music can be utilized in most social sciences, creating a connection between cultures and beliefs and making the material more evocative and significant.

Music and singing can be used across the curriculum, from language to math and sciences, as well. Gordon Shaw (2000) believes that music uses the same higher brain functions that math and science utilize, and training in how to read and play music can enhance these functions. These higher brain functions increase spatial temporal reasoning, which is the ability to visualize a problem and its answer. This can lead to an increased conceptual understanding of the material presented and aid in comprehension.

A Warning to Teachers
There are many benefits to using music and singing in the classroom environment, but teachers should be wary. It has been shown that while music and singing are effective strategies, it comes down to the teacher’s ability to have faith in herself.
teacher’s attitude is crucial to the success of this classroom experience. If teachers are uncomfortable with the idea of singing with their classes, their pupils will recognize this discomfort and the effectiveness of the instruction will be marginalized and ineffective (Cockburn, 1991). Professionals who embrace singing in the classroom as an instructional device must be dedicated to the effort to ensure success. Cox and Boyd-Batstone (1997) also point out that these musical tasks take a long time to plan and create. It is a daunting task, but it’s also the most inexpensive method in which to instruct students in a fun and meaningful way (Sunderman, 1972). “Music is a rich means of expression and language and we must not deny our children the chance to use it” (Paynter & Aston, 1970, p. 3).

Conclusions

Music has been at the forefront of discussion for many years. From Plato to Saint Augustine, from Schoen to Wolfe, music has been awakening our imagination and heightening our senses. Though there are holes in the research, many studies have shown the benefits of music, singing and rhyme.

Music has a profound effect of the alteration of moods. Whether to enliven the mood in the classroom, or to calm the students down, it can create a welcoming environment which allows for deeper learning. Though there is some disagreement amongst researchers about the effects music has on ADHD students, it has been shown to be effective in most cases.

Rhythm and music have also been linked to advancement in coordination, both in bodily coordination and with hand-writing. These claims, however, are not sufficiently supported and more research needs to be done in this area.

Singing and music have been strongly linked with emotional responses, as well. Schoen & Gatewood’s (1927) study on the effects of music showed a strong correlation between music and effects on emotions and mood. And according to Wolfe (2001), emotion drives attention and attention drives learning. With such a strong link between emotion and music, there is little doubt about the connection between music and memory. Memory is aided by the emotional response that music brings to life in the listener. This response allows for greater retention of the lyrics, due to strengthened pathways in the brain.

Music can also have a positive effect on maintaining a culturally diverse classroom environment. Through the use of music from different cultures, students can gain insights on other ways of life. Not much research has been done on this subject, and further studies would aid in validating this. This also helps to aid in language development for English Language Learners, allowing them to access their native cultures in a positive and meaningful way.

Singing and music also allow for learning in multiple modalities. It has been shown that people learn in different ways, using different strengths and intelligences. Music allows for multiple intelligences, and helps to strengthen the pathways in the brain by multiple exposures.

Though music has been shown to have a profound effect on many aspects and across curriculums, there are many major holes in the research. There needs to be more empirical research done to get definitive answers, but until that time, the research thus far has shown the use of music, singing and rhymes to be valuable instructional tools.

Recommendations for Practice

Singing, rhyming and music-making in the class are beneficial to students from all ages and backgrounds and levels of education. It can create a sense of community in the classroom and get students to participate in classroom activities. Here’s the crux. The success of using music in the class rests solely on the teacher, and many teachers are reluctant to take this responsibility. But there are some hints to get singing started in a class.

The most important aspect of using singing and music in the classroom is to remember to be positive and to keep it fun. A successful curriculum integrated with music hinges on that first experience in the class with music. If the environment is not caring and supportive, then the students will be uncomfortable with it and not receive the benefits of music and singing. It is also important to give the students and the teacher sufficient time to practice new songs (Baer-Simahl, 2002).

Some teachers are nervous when it comes to singing in front of the class, uneasy about their ability to carry a tune. This can be helped by starting with simple patterns, rhymes and rhythms and then moving on to familiar songs, building up confidence with each song. Using tape-recorded music and songs are also acceptable if a teacher is uncomfortable leading the class through the songs. Aside from relieving tension for the teacher, tape-recorded music can also encourage participation from students who would otherwise not participate (Page, 1995). In order for singing and music in the classroom to be profitable to all involved, teachers must be sincere. If the teacher is not sincere, the music is void of meaning and value for the students and becomes purely entertainment.
A big motivator, and also a de-motivator, is song and music selection. The songs that are selected should be songs that the students like and that are age appropriate. Younger students enjoy rounds and simple songs and rhymes. They also enjoy using percussion instruments and sticks and shakers to keep the beat. In early grades especially, the physical response is very important. Including movement with the songs can renew the students, giving them energy and creating a sense of community (Page, 1995). Incorporating movement into the songs can also enhance the learning process through extra sensory input, increasing recall (Wolfe, 2001). One good place to start incorporating music into the classroom is to begin and end the class with a song. A wrap-up song about what you learned throughout the day is fun, creates a sense of community and reestablishes what has been learned that day. Celebratory songs are always a big hit with younger students and songs relating to the material being covered can create a sense of excitement about what the students are learning. Another good place to use music and songs is during transition times. This signals the students that it is time to transition from one subject or activity to another. This works especially well with young students, but can also work with older students as well. This method has been used extensively in Waldorf Schools with great success (Daniels & Bizar, 2005; Nicholson, 2000).

For older students, using rap songs and current music is a big motivator. There are plenty of rap songs out there about various topics and concepts, which are available for download or purchase. But research has shown that songs written by the students themselves are more effective and influential in the learning process. While singing songs about the Seven Seas may be fun; creating a song or rap about the Seven Seas is much more meaningful to the students. It is clear from the research that older students need to be involved in the creation of the music to create a sense of ownership and pride, and to enhance retention and recall (Wolfe, 2001). Students should be encouraged to write songs that fit their desired learning outcomes in a unique and individual way. These songs could be created individually or in groups, or by the whole class. A good project is to have the students create raps or parodies of current songs based on the lesson, and then create a music video for the song and show it to other classes. This project not only embeds the material in their minds, but also taps into other talents that the students possess such as writing, singing, playing instruments, creativity, humor and technological skills.

Teachers should actively seek out music that varies in genre, culture and history. Integrating music into the curriculum can expose students to different cultures and historical periods. Teachers should seek out selections that are from cultures beyond the teacher and students in the class, but also look to the cultures in the class for a starting place. Exposure to these different cultures via their music instills an appreciation for various cultures and their contributions to society. Learning the cultural backgrounds of songs is also a meaningful and interdisciplinary way to look at other cultures and histories (Ovando et al., 2003; Page, 1995).

Knabb (2003) contends that teachers should heed Howard Gardner’s advice to use non-traditional teaching practices to account for different learning styles. Knabb also suggests the benefits of rewriting songs; however, she especially favors choosing contemporary popular songs as opposed to traditional well-known melodies, in order to create an element of relevancy to her students.

Knabb’s study also cites the use of hip-hop at the elementary level, though she personally used singing to help teach her undergraduate students key anatomy and physiology facts. She maintains that this technique can be used successfully at the college level. Using music, rhymes and songs in the classroom can support lesson materials and is one of the few methods that cost little to nothing to create and implement. It can be used for all ages and is fun and engaging while creating an authentic learning experience for each individual. All it takes is a little courage and a lot of compassion to create a caring learning environment that all students can thrive in and benefit from.

References


Attachment Theory:
Student-Teacher Attachment Patterns in the Classroom
by Kellee Pokaka’a

Attachment Theory was originally developed to explain the important bond between mother and child. Current research furthers these studies by suggesting that relationships between students and teachers can emulate the attached relationship of mother and child and can even aide in improving attachment security in students who have previously lacked securely attached relationships. Further, studies indicate that a secure relationship between student and teacher can lead to positive development of social skills and cognitive development. Suggestions are given to aide teachers in using Attachment Theory research to develop healthy bonds in the classroom.

Introduction

Attachment Theory can be an important tool for educators. The teacher-student relationship closely mimics that of a parent-child relationship. The benefit of a secure attachment to an adult figure or secure base will imprint a strong sense of self worth resulting in the ability to self-regulate emotions. This sense of self and others (Internal Working Model) allows for cognitive development to occur. Children who insecurely attach to a secure base will be more likely to imprint low self-esteem and lack of control, evidenced by shallow relationships, difficulty in impulse control, and limited cognitive abilities (Ainsworth et al., 1962).

Current Attachment Theory (Ainsworth, 1967) research in the specific field of teacher-student relationships is limited. Limitations hinder knowledge of attachment research resulting in a lack of presence in the education field. However, Attachment Theory research puts a clear label to what we know is important, the bond between teacher and student. Attachment Theory specifically focuses on the unique teacher-student relationship as a secondary or part of a multiple hierarchy of qualifying attached relationships (Soares, Lemos, & Almeida, 2005). Students who form secure attachments with their teachers mimic that of a parent-child relationship with all the benefits of a positive view of self and others, but also, are more likely to have fewer behavioral problems and demonstrate higher achievements and social cognition in the classroom (Kennedy & Kennedy, 2004).

While research within the last ten years has produced many studies that suggest the student-teacher relationship is a qualifying attachment, ethologists, who approach attachment though genetic experimentation, believe differently. Researchers Bowlby (1953) and Ainsworth (1962) explain attachment is hard wired and an innate process which must occur in infancy. Their theories have been viewed as problematic due to the lack of emphasis of socio-cultural implications (Rothbaum, Rosen, Ujiie, & Uchida, 2002; Rothbaum & Weisz, 2000).

This paper will begin by discussing the history of Attachment Theory by looking at the controversies between Bowlby’s and Ainsworth’s contributions and current research on socio-cultural implications. Next, this paper will examine the importance of Attachment Theory to the learner; work in this field finds specific ties between Attachment Theory and motivational and cognitive development. Finally, this paper discusses the teacher’s part as the key constructor of the classroom’s social and cognitive interactions.

History of Attachment Theory

During the early 1900s, developmental theorists and psychologists loosely framed Attachment Theory on the basis of social interaction between the mother and child. Freud’s (1949) work specifically suggests that the homeostasis of social development is dependent on an individual’s ego, an innate function that regulates emotions and secures required resources needed for survival. This need is specifically met through the imperative bond between mother and child (Freud, 1949). Further, developmental psychologist Erik Erickson uses Freud’s theories of motherly love to develop his own ideas of the mother and child bond. Erickson believes that the first task of the child is to develop trust, a type of attachment, which is obtained through maternal care. “The infant’s first social achievement, is his willingness to let the mother out of sight without undue anxiety or rage, because she has become an inner certainty as well as an outer predictability” (Erickson, 1950, p. 247). The mother and child bond is necessary to secure the ego’s development, which in turn ensures homeostasis of emotions and social cognition.

Building on Freud’s and Erickson’s framework of the mother-child dyad, John Bowlby (1953, 1988) labeled the process of the relationship formation,
“Attachment Theory.” Mary Ainsworth would advance research in the field by attempting to show the universality of attachment cross-culturally through her two landmark studies: field work on secure base in Uganda (Ainsworth, 1967), and her well documented Baltimore experiment (Ainsworth, Blehar, Waters, & Wall, 1978). These studies, in unison with a collection of public documents such as Deprivation of Maternal Care (Ainsworth et al., 1962), opened doors in the 60s for interest in this specific field (Bowlby, 1988). Harlow and Zimmerman’s (1959) landmark study on Rhesus monkeys, as well as other ethological experiments, led Bowlby and Ainsworth further from Freud’s and Erickson’s ideas that were based in psychological development. They would instead develop the idea that, “the propensity to form attachments would be considered to be largely ‘hard-wired’ in human neurobiology, and thereby, universally experienced by all members of the species” (Barnett, Butler, & Vondura, 1999, p. 174). Bowlby (1953) and Ainsworth (1967) would conclude that core elements of attachment development, as evidenced in cross-cultural observations and through ethological experimentation, were ‘hard wired,’ making Attachment Theory applicable to every culture.

Other theorists question Bowlby’s and Ainsworth’s Attachment Theory on the basis of eurocentrism (Rothbaum et al., 2002; Rothbaum & Weisz, 2000). “Core tenants of attachment theory are deeply rooted in mainstream Western thought and require fundamental change when applied to other cultures or minority groups” (Rothbaum & Weisz, 2000, p. 1094). Rothbaum suggests that Bowlby’s and Ainsworth’s studies were conducted using Western norms and scales to determine what “preferred” attachment is defined as (Rothbaum et al., 2002; Rothbaum & Weisz, 2000). For example, the desire for autonomy and security are viewed as Western preferences. Japanese mother-child dyads mostly foster dependence at an early age (Minuchin, 2002). Japanese mothers create an enmeshed bond with their children by practicing prolonged skin to skin contact, co-sleeping, full devotion to child, and over indulgence (Rothbaum et al., 2002). Work by Rastogi and Wampler (1999) further finds that mother-daughter dyads of European American, Mexican American, and Asian Indian cultures approach childrearing and attachment preferences differently. Rastogi and Wampler’s (1999) study shows Asian Indian Americans score highest in all categories of connectedness and closeness, dependence, and trust in hierarchy (Rastogi & Wampler, 1999). There is an importance placed on the secure base figure, but the results of desired attachment security are different cross-culturally.

Takahashi (2005) developed the Social Network Model to more accurately describe attachment as a socio-cultural process. The model deviates from Attachment Theory in two fundamental ways: a) the importance of the mother and b) the constraints to which childhood experiences limit future development. The Social Network Model generally ascribes to the flexibility of attachments, making attachment adaptable according to the socio-cultural experiences a person may encounter throughout life. The Social Network Model removes the necessity of “mother” as central to attachment and so allows for multiple attachments to ensue (Takahashi, 2005).

Importance of Attachment to Promote Learning

Rothbaum et al.’s (2002; 2000) and Takahashi’s (2005) work on the role of socio-cultural implications suggest that attachments can occur throughout the lifespan and with people other than mother. Piaget uses these social relationships to promote equilibrium and stability, providing the necessary psychological conditions needed for the “attainment of truth” (Bradley, 2002, p. 189). Social experiences will stimulate or minimize patterns of safety and comfort within the Internal Working Model which provides mental representations of self and others (Kennedy & Kennedy, 2004). A secure attachment provides the necessary psychological conditions for ease of academic attainment. Rio’s (2005) study specifically links the influence of social attachments to cognitive development. Rio measured 111 women and men for curiosity, student improvement, and attachment. The results suggest that a student who achieves positive social attachments also possesses optimism, will be more curious, and will view learning success positively (Reio & Sanders-Reio, 2005).

The importance of motivation as a result of social attachments and a positive Internal Working Model has also been studied. Kennedy and Kennedy (2004) suggest that students who are motivated to engage in learning do so because of a deep responsiveness felt within social interactions (Kennedy & Kennedy, 2004). If a student feels reciprocity of interactions or positive feedback, the student will become engrossed in an activity and remain so for a longer duration (Greenberg, Cicchetti, & Cummings, 1990). Soares et al.’s (2005) study interviews and interprets 44 sixth-grade students. Soars et al. found that students who are secure find social interactions less threatening and therefore are more likely to show constructive motivational strategies (Soares et al., 2005).

Mikulincer (1997) further conducted a series of tests that tie cognitive traits such as need for order, predictability, and curiosity, to secure attachment.
patterns in children. Mikulincer finds that securely attached children will be more likely to pursue curiosity because of the comfort in having a secure base in which to return to. At the same time, insecure children are more likely to prefer order and predictability to maintain homeostasis rather than explore the unknown. Further, insecurely attached children were more likely to withdraw quickly and to repress their curiosity because they were fearful of hurting others’ feelings. Mikulincer’s study suggests that while securely attached children obtain the tools needed to achieve cognitive development, insecurely attached children do not (Mikulincer, 1997).

**Attachment and the Student-Teacher Relationship**

The elasticity of the Social Network Model suggests that attachments can be made throughout a lifetime and with secondary and multiple figures to ensure security and comfort in times of stress (Takahashi, 2005). The relationship between student and teacher qualifies as long as it meets the necessary components of provision of physical and emotional care, consistent presence, and an emotional investment in a student (Kennedy & Kennedy, 2004). Furthermore, Stuhlman & Pianta (2002) found that students who attach to their teachers in the early elementary grades will be more competent in relationships with peers and future teachers, will adjust to school more easily, and are more likely to obtain academic achievement.

The complex development of the student-teacher attachment is contingent upon a teacher’s own attachment pattern (Kennedy & Kennedy, 2004). Kesner (2000) surveyed 138 pre-service teachers finding that those who have been harshly disciplined as a child are less likely to experience closeness to their students. More so, teachers with difficulties in forming attachments with their students are found to be more likely to criticize students for failure, give up more easily, and are characterized by a negative view of self and others (Morris-Rothschild & Brassard, 2006). The inability to connect with students hinders the possible teacher-student relationship that promotes social and cognitive development (Kesner, 2000).

Other issues, such as biases against gender and cultural background, impede teacher-student attachment (Kesner, 2000). Female teachers are more likely to form attachments with girls and find relationships with boys more conflicting. Others posit that a white teacher’s ability to attach to a student of color seems unlikely because of the inability to understand the child’s needs (Kesner, 2000).

Biases of the teacher hindering student-teacher attachment have been linked to learning difficulties and disabilities. Al-Yagon and Margalit (2006) surveyed 118 children with reading difficulties and 148 children without reading difficulties. The results indicate that children who view their teachers as highly rejecting reported higher loneliness and a lower sense of coherence than did students who viewed their teachers as slightly rejecting. Another study by Al-Yagon and Mikulincer (2004) specifically links learning disabilities to insecure attachment. 196 children were surveyed and scaled using the Children’s Sense of Coherence Scale, Attachment Style Scale, and the Teacher Assessment of Student Academic Functioning. Results suggest that students with learning disabilities report less attachment security and anxiety in close relationships. “An examination of group means indicated that students with LD scored higher in loneliness and lower in sense of coherence and academic functioning that did students with typical development” (Al-Yagon & Mikulincer, 2004, p. 16).

Attachment style, gender, and race affect a teacher’s ability to put aside biases to form relationships with their students (Morris-Rothschild & Brassard, 2006). “We know teachers bring to the classroom beliefs about the nature of schooling, knowledge, and learning…additionally, teachers may bring with them beliefs about themselves as teachers and beliefs about their student’s abilities and motivations and the likelihood of their students’ success” (Morris-Rothschild & Brassard, 2006, p. 107). Experienced teachers are more likely to recognize these biases and beliefs and are less likely to allow them to interfere in student-teacher relationships (Kesner, 2000; Morris-Rothschild & Brassard, 2006; Stuhlman & Pianta, 2002). Additionally, experienced teachers are better able to help children accurately label, manage, and express emotions in the classroom (Beishuizen, Hof, Van Putten, Bouwmeester, & Asscher, 2001).

Kennedy and Kennedy (2004) conclude that teachers become important constructors of a student’s Internal Working Model which results in cognitive development. Kennedy and Kennedy (2004) suggest that the teacher’s own Internal Working Model affects his or her teaching style which will develop or hinder the student’s Internal Working Model. Further, the teacher becomes responsible for the establishment and management of constitutional and environmental risk factors and context of such. Kennedy and Kennedy (2004) developed the following figure to organize information on the important role of the teacher regarding the student’s Internal Working Model (see Figure 1).
Figure 1.
*Parent, Teacher, and Environmental Influences on the Student’s Internal Working Model.*


**Conclusion**

Early attachment research by psychologists Freud and Erickson loosely explained the importance of the mother and child bond as a cornerstone to psychological development (Erickson, 1950; Freud, 1949). Bowlby and Ainsworth explicitly labeled this relationship as Attachment Theory, laying out the foundation for further research in this expanding field (Ainsworth, 1967; Ainsworth, 1979; Ainsworth et al., 1962; Ainsworth et al., 1978; Bowlby, 1953, 1988). While some use and support Bowlby’s and Ainsworth’s theories of attachment to develop their theories, others argue against them. Current research has lead theorists to deviate from the restrictive approach of attachment that Bowlby and Ainsworth thought must occur with a mother figure in early infancy, instead suggesting that the process of attachment can occur across a life span and with many different people (Takahashi, 2005). These new theories suggest that relationships between teacher and student can be considered an attached relationship, further making a link between the student-teacher relationship and cognitive development in the classroom (Greenberg et al., 1990; Soares et al., 2005).

This literature review examined particularly the secure relationship between student and teacher and its effects on cognitive development. Research suggests that psychological needs of comfort and safety can be satisfied by the student-teacher relationship, allowing for motivational behaviors to drive cognitive development. The research also suggests that the bond between student and teacher can be hindered or improved by socio-cultural implications such as the teacher’s previous attachment patterns, racial identity, and experience. The following list summarizes the major findings of this literature review.

- Attachment Theory as a biological process has been questioned through research that suggests attachment security is a matter of cultural preference.
- Socio-cultural experiences develop a student’s perception of self and others either
practices should be developed using Attachment Theory as a framework. For instance, evidence suggests that students need to be kept with their teacher for longer than one year if attachment security is to improve (Honig, 1998). Further, studies suggest that frequent changes of teachers increase the amount and inadequacy of attachments causing further difficulties in forming future attachments. Policies need to reflect the necessity of continuity for students so that healthy attachments with teachers may occur.

Further support by administration should focus on class size. Policies need to be sensitive to the implications larger classrooms have on attachment development. Administration should create policies that allow for small class sizes as well as continuity of teachers to form secure attachments over longer periods of time (Mardell 1992).

Understand one’s own attachment patterns and preferences: Administrative support should also work hand in hand with teachers’ deep reflection of personal biases and one’s own attachment patterns (Kennedy, 2004). Teachers should deconstruct their personal biases and insecure attachments, as a teacher’s unexamined past may hinder close relationships with students. Teachers who do not spend time reflecting on their own biases and attachment patterns may inadvertently cause students to feel devalued or uncared for, hindering students’ attachment development.

Care as a tool for attachment development: Noddings (1984) particularly focuses on “care” as a mechanism for the student-teacher relationship. Care is manifested by showing a genuine concern for each individual child, placing the students’ individual needs as a priority. Teachers’ genuine care may manifest itself by feeling sorrow for failures and upsets and excitement for success and goal completions (Randall & Gehring, 2004, p. 192). Teachers must understand that care can be an important piece to developing an attached relationship with students, thus improving students’ self-esteem and success.

Developing relationships with students through a sense of community: Tapping into the community of the students can benefit the attachment process two fold. First, alliances with families in the students’ communities can offer information regarding students’ behavioral or cultural tendencies. Understanding the students’ previous attachment patterns as well as cultural norms of attachment patterns can aide a teacher in understanding the best method to develop attached relationships with students.

Secondly, engaging community in the classroom will create a sense of connectedness to the community, classroom, and teacher (Mardell, 1992). Creating this bridge between home and school will further solidify the support network students have, exemplifying the ideology that a student’s failure is everybody’s failure and a student’s success is everybody’s success. This self-esteem development

**References**


Mathematics Anxiety: Research and Implications for Middle School Students and Teachers

by Rob Preston

This paper examines the subject of mathematics anxiety with a focus on research and implications for middle school students and teachers. Anxiety towards mathematics is consistently shown to decrease performance in mathematics. Mathematics anxiety appears to become more prevalent beginning in middle school. This paper reviews research covering how measures of mathematics anxiety correlate with contributing factors such as constructivist and traditional teaching methods, the influence of teacher attitude, and the link between mathematics anxiety and test anxiety. The paper makes recommendations for teaching based on the literature, including teacher preparation and practices. Primary recommendations include utilization of the NCTM teaching standards with accommodations for different types of learners and a focus on meaning making.

Introduction

This paper examines the subject of mathematics anxiety with a focus on the research and implications for middle school students and teachers. Mathematics anxiety is defined as negative thoughts or feelings towards mathematics that inhibit the ability to perform mathematically. Anxiety towards mathematics contributes to poor performance in mathematics, a serious problem for both individuals and society. Anxiety towards mathematics leads to avoidance of mathematics coursework in college, limiting students’ career options and eroding the nation’s resource base in mathematics. It also has a negative emotional impact on students.

This paper provides a historical context by examining the study that led to the creation of the concept of mathematics anxiety as an area of study. It also looks at the ways researchers measure mathematics anxiety.

While it is difficult to pinpoint specific causes for anxiety towards mathematics, much research has focused on contributing factors. This paper looks at the measures of mathematics anxiety and how they correlate with contributing factors such as teaching methods, the influence of teacher attitude, and test anxiety. It also considers the prevalence of the problem of mathematics anxiety and who is affected by mathematics anxiety based on categories such as age, self-perception, race, gender, and learning type. In addition, it explores the psychological and economic consequences of mathematics anxiety for individuals and examines the impact on our society and economy.

In addition, researchers have written about the best practices and strategies to alleviate the problem of mathematics anxiety. This paper concentrates on the role of the National Council of Teachers of Mathematics (NCTM) in shaping mathematics teaching and summarizes their research-based recommendations for teachers. Traditional teaching approaches emphasize methods such as direct instruction, reliance on drills, and rote memorization. In contrast, constructivist teaching approaches emphasize process over correct answers, utilization of multiple methods of problem solving, group work, discussion, and writing.

This paper also summarizes current controversies in the ongoing debate between traditional and constructivist educators over the best ways to improve performance in mathematics. Specifically, it reviews the reactions to recent recommendations made by the NCTM related to the teaching of mathematics.

This paper provides a critical analysis of the research related to mathematics anxiety, focusing on its strengths and limitations in finding solutions to the problem of mathematics anxiety. Despite the prevalence of mathematics anxiety, there is relatively little conclusive evidence regarding patterns of math anxiety prevalence. While researchers have come to complementary conclusions regarding the onset of mathematics anxiety, the research is scarce in the area of differences between ethnic groups and inconclusive in the area of gender differences.

There is widespread recognition of the need to improve student performance in mathematics. Because of the impact of mathematics anxiety on student performance in mathematics, it is important to address the problem of mathematics anxiety with an approach informed by research if schools want to see better performance in mathematics by all students.

Literature Review
This section reviews academic literature related to mathematics anxiety with an emphasis on its implications for middle school students and teachers. It examines common definitions and measures used by researchers of mathematics anxiety and the research about factors that contribute to mathematics anxiety. It also looks at what the literature says about who is affected by mathematics anxiety and the ramifications of mathematics anxiety for both the individual student and for society at large. In addition, it provides an examination of the research about strategies for the reduction of mathematics anxiety. It includes a critical analysis of the research. The section concludes with a discussion of the current debates surrounding mathematics anxiety, including recent changes to the National Council of Teachers of Mathematics’ (NCTM) standards.

Defining Mathematics Anxiety
Richardson and Suinn (1972) defined mathematics anxiety as “feelings of tension and anxiety that interfere with the manipulation of numbers and the solving of mathematical problems in a wide variety of ordinary life and academic situations” (p. 551). It has also been defined as an “irrational dread of mathematics that interferes with manipulating numbers and solving mathematical problems within a variety of everyday life and academic situations” (Joseph & Barbara, 2003, p. 170).

Physiological manifestations of mathematics anxiety are similar to other forms of anxiety and include perspiration and increased heartbeat (Ma, 1999). This concept is defined by its debilitating effect on the ability to think mathematically. Research from 1975 to the present has repeatedly shown a link between anxiety towards mathematics and decreased performance in mathematics (Hembree, 1990; Ma, 1999).

Historical Overview
Research in the subject of mathematics anxiety was initiated by research in the broader subject of test anxiety and its cognitive, emotional, and behavioral aspects. Saranson and Mandler (1952) found in their study of Yale University students that students reporting higher levels of anxiety towards test taking underperformed when compared to their less anxious peers due to the distractions caused by the anxiety.

Richardson and Suinn (1972) were the first researchers to define and research the subject of mathematics anxiety. They applied the model of test anxiety established by Saranson and Mandler (1952) to the area of mathematics. Researchers have continued to look at mathematics anxiety for answers to current concerns about improving underperformance in mathematics due to its impact on both individual students and the economy.

Measuring Mathematics Anxiety
In order to test the validity of the concept of mathematics anxiety, research often follows this general formula: first, a test is given to measure the level of mathematics anxiety experienced, then another test is given to measure math performance, and finally an analysis is done for correlations between the two results. Researchers generally use one of three tests to measure math anxiety. In many studies the researchers then modify the selected test to meet their specific needs. All of these tests use a Likert-type scale that measures a range of answers on a continuum and assigns a numeric value to each answer for comparison and analysis.

Richardson and Suinn (1972) developed the Mathematics Anxiety Rating Scale (MARS), which measures a student’s math anxiety in academic and nonacademic settings. Fennema and Sherman (1976) developed another popular scale for measuring mathematics anxiety, the Mathematics Anxiety Scale (MAS), which measures feelings of anxiety and somatic symptoms (Cates & Rhymer, 2003; Ma, 1999).

More recently, Chiu and Henry (1990) developed The Mathematics Anxiety Scale for Children (MASC). This was designed specifically to measure mathematics anxiety in upper elementary and middle school children. The scale ranges from very, very nervous to not nervous. There are 22 situations described on the test, such as getting a new textbook, starting to do homework, and taking an important test. The length and focus of the MASC is aimed at a younger demographic than the MARS or MAS (Chiu & Henry, 1990).

Research has found the tools that measure anxiety to be highly reliable. In a meta-analysis of 26 articles on mathematics anxiety in elementary and secondary students, Ma (1999) found a consistently significant correlation between mathematics anxiety and performance, regardless of which anxiety test measurement was used. The analysis covered the three tests described above and three others. Ma concludes that the consistency seen across studies may be due to the strong correlation.

To measure math performance, researchers usually use the results of standardized tests such as the Iowa Test of Basic Skills or the Stanford Achievement Test, teacher grades, or researcher-developed tests. When standardized tests were used, researchers found a correlation between mathematics anxiety and decreased mathematical performance; when researcher-developed tests of performance were used, the correlation was even stronger (Ma, 1999).
In a critique of the prevalent methodological focus on accuracy in mathematics performance testing, Cates and Rhymer (2003) argued that fluency, in addition to accuracy, should be taken into account when evaluating student performance in mathematics. “Fluency, or skill mastery, is the ability to perform a behavior correctly, quickly, and with minimal effort” (Cates & Rhymer, 2003, p. 25). Their study of 52 college students measured mathematics fluency by incorporating the test of digits correct per minute. Cates and Rhymer concluded from their research that math anxiety may be more related to lack of fluency than lack of accuracy.

Influences on Mathematics Anxiety

While researchers have found it difficult to pinpoint a single cause or a combination of causes for mathematics anxiety, research has shown some contributing factors (Ma, 1999). Specifically, research points to teaching styles, teachers, and test anxiety all affecting student anxiety levels towards math.

Traditional teaching methods, such as direct instruction and reliance on drills and rote memorization, increase students’ anxiety about mathematics (Norwood, 1994). Haberman (1991) described these methods, which continue to be prevalent in urban schools, as the pedagogy of poverty. These methods are particularly ineffective for members of some cultural groups. Hillberg, Sharpe, & DeGees (2000) found in a study of 31 8th grade Southwest American Indian students that constructivist teaching methods resulted in a highly significant increase in retention compared to traditional methods.

In an effort to reach all students, the NCTM (1989) released research-based standards designed to guide curriculums aimed at effective learning for all students. The goals of the standards are that all students learn to value mathematics, develop confidence, become problem solvers, and are able to communicate and reason mathematically. The standards focus on the use of constructivist teaching methods, such as emphasizing process over correct answers, utilizing multiple methods of problem solving, and employing group work, discussion, and writing (Barbara & Joseph, 2003; Brumbaugh & Rock, 2001).

Despite research showing the advantages of constructivist teaching methods over traditional teaching methods when it comes to mathematics anxiety, college students in lower levels of math have been found to sometimes prefer and experience less anxiety under direct instruction compared to constructivist teaching methods (Norwood, 1994). Researchers have speculated that this is because students do not trust their instincts and intuitions and therefore do not want to take the risk of being involved in group work (Norwood, 1994; Tobias, 1993). Similarly, Newstead’s (1998) study of 246 9- to 11-year-olds that were raised being taught math in a traditional manner in the United Kingdom also showed students’ anxiety about doing math work using constructivist methods, including group work. She concluded that many math-anxious teachers and students prefer traditional methods.

Further, teachers with mathematics anxiety have been found to pass their anxiety on to their students (Joseph & Barbara, 2003; Ma, 1999). Students with high math anxiety tend to view their teachers as being negative towards mathematics (Hembree, 1990; Taylor & Fraser, 2003). A small study done in Calgary, Alberta, found that teachers’ interpersonal skills affected students’ anxiety and achievement; however, because of the small sample size, the authors warned that the results may not be generalized and suggest further studies be done with larger random samples (Boak & Conklin, 1975). Finally, a study of 61 college students at a small, Midwestern liberal-arts university found that a teacher’s level of confidence also appears to influence the anxiety level of his or her students (Alsup, 2005).

Given that the majority of teachers received lecture-based mathematics instruction themselves, it seems unlikely that most teachers will be comfortable or willing to teach in the constructivist manner endorsed by the NCTM in their 1989 standards (Alsup, 2005). Indeed, pre-service elementary teachers show the highest level of mathematics anxiety of any college major, suggesting that mathematics anxiety may be widely prevalent among elementary school teachers in the United States (Hembree, 1990).

Research has shown a connection between mathematics anxiety and test anxiety (Hembree, 1990); however, the nature of that relationship is debated (Ma, 1999). The focus placed on performing well on standardized tests by school districts may cause teachers to increase student stress and therefore decrease performance (Joseph & Barbara, 2003). Similarly, Kohn (1999) expressed concern with overemphasizing achievement because it causes stress and anxiety. Tobias (1994) suggested a model she calls the deficit model; she argued that test anxiety does not cause poor performance, but, rather, the awareness of poor preparation, poor test-taking skills, and/or past failure causes the anxiety.

Who is Affected by Mathematics Anxiety?

Mathematics anxiety is a widespread phenomenon in American culture. It is estimated that
two-thirds of American adults experience mathematics anxiety (Joseph & Barbara, 2003). Despite this, there is relatively little conclusive evidence regarding patterns of math anxiety prevalence. While researchers have come to complementary conclusions regarding the onset of mathematics anxiety, the research is scarce in the area of differences between ethnic groups and inconclusive in the area of gender differences.

Mathematics anxiety appears to be a learned behavior (Hembree, 1990). It is often found to originate early in a student’s educational experience (Chiu & Henry, 1990; Newstead, 1998). Researchers have found that many students develop negative attitudes towards mathematics in middle school. Hembree (1990) found that mathematics anxiety reaches its peak around grades 9 and 10.

Rech (1994) found in a study of 251 fourth and eighth-grade Black students that high-achieving students in eighth grade showed a significantly higher level of mathematics anxiety than high-achieving fourth-graders and low-achieving eighth-graders. The study concluded that more research is needed to find ways to maintain student attitude and interest in mathematics.

In a 1978 study of 714 seventh grade math students of mixed socio-economic background in the suburban Midwest, Brassel, Petry and Brooks (1980) found that the lower a student fell in his or her math group, the more math anxiety the student experienced. Their findings were consistent regardless of whether the group itself was of high, medium, or low ability. These findings suggest that a pattern of mathematics anxiety prevails within certain members of groups regardless of the group’s composition. This implies the importance of relative success and self-perception in influencing self-esteem and reducing anxiety.

It is difficult, however, to compare mathematics anxiety across different cultures (Ma, 1999)—the research in this area is fairly limited. Ma’s meta-analysis concluded from the limited sources available that ethnicity does not appear to influence the effect of mathematics anxiety; however, it did not address the issue of prevalence by ethnicity. This appears to be a serious gap in the literature on mathematics anxiety given that significant performance gaps exist between ethnic groups.

Research on mathematics anxiety by gender is largely mixed in its conclusions. Some research shows that mathematics anxiety is more common in females. One indication may be that fewer women take advanced mathematics courses in college than men (Hembree, 1990; Tobias, 1993; Cooper & Robinson, 1991). In Hembree’s (1990) meta-analysis of 51 studies on mathematics anxiety, he concluded that females report higher levels of mathematics anxiety but that this does not result in decreased performance or higher math avoidance compared to males. He speculated that perhaps females are more likely to report mathematics anxiety because males may be more embarrassed to report it. Ma (1999) found the effect of mathematics anxiety to be similar for males and females, but did not comment on prevalence comparisons between them. Research shows mixed results on the correlation between achievement and gender; this could be due to no relationship or because the relationship is hidden in other variables (Bleyer, Elmore, & Pedersen, 1986).

There appears to be a connection between the prevalence of mathematics anxiety and learning type. Students with strong spatial visualization ability are less likely to be affected by math anxiety, which may be due to the abstraction required for many math concepts (Bleyer, Elmore, & Pedersen, 1986).

Ma’s (1999) meta-analysis contained a few outlier studies that implied that anxiety increases performance; however, this performance increase correlates with highly motivated students from high ability groups. Ma (1999) concluded that a student’s social and academic background is the key to determining whether anxiety results in increases or decreased performance, or has no effect at all.

**Consequences of Mathematics Anxiety**

Mathematics anxiety often results in decreased performance in mathematics (Hembree, 1990; Ma, 1999). Standardized test scores suffer in direct relationship with increased mathematics anxiety; another measure, student grades, shows the same relationship. Better attitudes lead to better understanding of concepts and increased problem solving ability (Joseph & Barbara, 2003). According to Ma (1999),

> [a]lthough the search for causes of mathematics anxiety is often unsuccessful, many researchers have reported the consequences of being anxious toward mathematics, including the inability to do mathematics, the decline in mathematics achievement, the avoidance of mathematics courses, the limitation in selecting college majors and future careers, and the negative feelings of guilt and shame. (p. 521)

The impacts of mathematics anxiety are far-reaching and affect individuals psychologically as well as economically (Ma, 1999).

Mathematics anxiety is related directly to the avoidance of mathematics courses, thereby limiting career opportunities. Hembree (1990) found that students with high levels of anxiety towards
One study focused on psychological approaches to mathematics anxiety reduction. Hembree (1990) found that whole class interventions including heuristic instead of algorithmic instruction, use of technology, small group work, and self-paced work did not effectively reduce anxiety about mathematics. Individual psychological treatments that used relaxation techniques including systematic desensitization, anxiety management training, and conditioned inhibition were successful in reducing mathematics anxiety. These treatments resulted in higher test scores (Hembree, 1990).

Because of the influence of teacher on students’ math anxiety, better teacher training could help alleviate mathematics anxiety (Joseph & Barbara, 2003). Because so many pre-service elementary teachers have high levels of math anxiety and tend to rely on direct teaching methods, they need better training to be able to teach learners of different types in accordance with the NCTM standards (Norwood, 1994; Sloan, Doane & Giesen, 2002; Brumbaugh & Rock, 2001). Since culture influences how a student learns, it is important for teachers to understand the importance of cultural language question types and their influence on student learning (Berk & Winsler, 1995).

Critical Analysis of the Research

Research from 1975 to the present has repeatedly shown a link between anxiety towards mathematics and decreased performance in mathematics (Hembree, 1990; Ma, 1999). Research has found the tools that measure anxiety to be highly reliable (Ma, 1999). While researchers have found it difficult to pinpoint a single cause or a combination of causes for mathematics anxiety, research has focused on some of the contributing factors discussed above such as teaching styles, teachers, and test anxiety (Ma, 1999). Research provides no simple clear answers to eliminating the problem of mathematics anxiety but does provide clues for strategies to reduce its impact.

The Current Debate over Teaching Methodology

A common critique of constructivist teaching is that students will not memorize needed facts, such as the multiplication table, and will therefore have difficulty doing more advanced math (Saunders, 2006). The debate focuses on the importance of skills versus the importance of concepts and the best teaching styles to reach those goals. Recently, the NCTM (2006) revised their guidance to teachers by releasing Curriculum Focal Points. Rather than downplay the importance of memorization, their focal points call for fourth graders to be able to quickly recall simple multiplication. Critics of constructivism refer to the approach as fuzzy math.
and see the NCTM’s new recommendations as an admission of the failure of constructivist math (Lewin, 2006; Saunders, 2006; Thurman, 2006). The NCTM (2006) released the Curriculum Focal Points to show what should be taught, not how it should be taught. The Curriculum Focal Points were designed by the NCTM to be used in conjunction with their previous recommendations such as their Principles and Standards. As Dewey (1938/1997) pointed out, constructivist teaching does not mean rejecting everything associated with traditional schooling.

Conclusion

This paper examined the subject of mathematics anxiety with a focus on the research and implications for middle school students and teachers. Mathematics anxiety is defined as negative thoughts or feelings towards mathematics that inhibit the ability to perform mathematically. Regardless of the measure used, mathematics anxiety has indeed been shown to be a factor in decreased mathematics performance (Hembree, 1990; Ma, 1999). Underperformance in mathematics is a serious problem for both individuals and society. Anxiety towards mathematics leads to avoidance of mathematics coursework in college, thus limiting students’ career options; it also has a negative emotional impact on students. Mathematics anxiety negatively impacts the nation’s economy and erodes the nation’s resource base in mathematics.

This paper provided a historical context starting with the 1952 Yale University study that created test anxiety as an area of research (Sarason & Mandler, 1952). The Yale study led to the creation of the concept of mathematics anxiety by Richardson & Suinn (1972) as an area of study. It also reviewed the ways researchers measure mathematics anxiety with a focus on the three most commonly used measures: the Mathematics Anxiety Rating Scale (MARS); the Mathematics Anxiety Scale (MAS); and the Mathematics Anxiety Scale for Children (MASC).

Research on the causes of mathematics anxiety is inconclusive, but the search for correlation provides some guidance into what factors seem to encourage math anxiety (Ma, 1999). This paper examined how measures of mathematics anxiety correlate with contributing factors such as constructivist and traditional teaching methods, the influence of teacher attitude, and the link between mathematics anxiety and test anxiety. It also considered the prevalence of the problem of mathematics anxiety and who is affected by mathematics anxiety based on categories such as age, self-perception, race, gender, and learning type. Mathematics anxiety appears to become more prevalent at the middle school age (Hembree, 1990). In addition, the paper explored the psychological and economic consequences of mathematics anxiety for individuals and examined the impact on our society and economy.

Researchers have written about the best practices and strategies to alleviate the problem of mathematics anxiety. The role of the National Council of Teachers of Mathematics (NCTM) has been fundamental in shaping mathematics teaching through their research-based recommendations for teachers. The NCTM (1990) recommends a constructivist teaching style with accommodations for different types of learners and a focus on meaning making. Traditional teaching approaches emphasize methods such as direct instruction, reliance on drills, and rote memorization. In contrast, constructivist teaching approaches emphasize process over correct answers, utilization of multiple methods of problem solving, group work, discussion, and writing.

In addition, this paper summarized current controversies in the ongoing debate between traditional and constructivist educators over the best ways to improve performance in mathematics. Specifically, it reviewed the reactions to recent recommendations made by the NCTM in their Curriculum Focal Points.

Finally, this paper provided a critical analysis of the research related to mathematics anxiety, focusing on its strengths and limitations in finding solutions to the problem of mathematics anxiety. Despite the prevalence of mathematics anxiety, there is relatively little conclusive evidence regarding patterns of math anxiety prevalence. While researchers have come to complementary conclusions regarding the onset of mathematics anxiety, the research is scarce in the area of differences between ethnic groups and inconclusive in the area of gender differences (Ma, 1999).

There is widespread recognition of the need to improve student performance in mathematics. Because of the impact of mathematics anxiety on student performance in mathematics, it is important to address the problem of mathematics anxiety with an approach informed by research if schools want to see better performance in mathematics by all students.

Recommendations for Practice

For teachers interested in alleviating mathematics anxiety, there are many things that can be done both outside and inside the classroom to address the problem. A variety of recommendations for teaching based upon the literature reviewed in this
Alleviating Mathematics Anxiety.

<table>
<thead>
<tr>
<th>Aspect of Problem or Influence on M.A.</th>
<th>Recommendations for Practice</th>
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<tbody>
<tr>
<td>Teachers pass mathematics anxiety on to their students</td>
<td>Teachers need to increase their confidence in their own mathematics ability through ongoing professional development</td>
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<tr>
<td>Most teachers learned mathematics through traditional teaching methods</td>
<td>Teachers need training in the constructivist approaches recommended by the NCTM</td>
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<td>Self-esteem</td>
<td>Less competition</td>
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<td>Less testing</td>
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<td>No put-downs allowed in class</td>
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<td>Build student success</td>
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<td>Avoid ranking students</td>
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<td>Involve students in decision-making process</td>
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<td>Encourage students to talk about themselves in ways connected to mathematics</td>
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<td>Isolation</td>
<td>Well-planned group work</td>
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<td>Classroom discussions</td>
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<td>Learn student names</td>
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<td>One right answer</td>
<td>Emphasize process over correctness</td>
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<td></td>
<td>Emphasize multiple methods of problem solving</td>
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<td>Remind students that everyone makes mistakes</td>
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<td>Emphasize that misconceptions are opportunities for learning</td>
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<td>Pose open ended questions that do not have one right answer</td>
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<td>Mathematics favors certain types of learners</td>
<td>Actively focus on developing students ability in spatial visualization</td>
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<tr>
<td>Misconceptions of what mathematics is</td>
<td>Emphasize that mathematics is a tool for thinking and reasoning</td>
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<td></td>
<td>Remind students that we all use mathematics every day</td>
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<td></td>
<td>Emphasize real life problems and applications</td>
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<td>Remind students that mathematics can be fun</td>
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<tr>
<td>Time-pressure</td>
<td>Reduce time-pressure in testing and instruction</td>
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<tr>
<td>Lack of conceptual understanding</td>
<td>Emphasize meaning over memorization of rules</td>
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<td></td>
<td>Introduce concepts before problem solving algorithms</td>
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Many teachers themselves have high levels of anxiety towards mathematics (Alsup, 2005). Because the level of anxiety a teacher has towards mathematics affects a student’s level of mathematics anxiety, it is important for teachers to increase their own confidence in their ability to do mathematics (Ma, 1999; Joseph & Barbara, 2003). Many teachers were taught mathematics in a traditional teaching style (Alsup, 2005). Therefore, teachers need to be trained to teach effectively in the constructivist style recommended by the NCTM (Norwood, 1994; Sloan, Doane & Giesen, 2002; Brumbaugh & Rock, 2001).
Inside the classroom, teachers can implement some of the teaching recommendations made by the NCTM that are specific to alleviating mathematics anxiety. Specifically, they can reduce the emphasis on drills and rote memorization (Norwood, 1994). They can also reduce student stress associated with mathematics by reducing isolation through utilizing well-planned group work (Berk & Winsler, 1995). Self-esteem plays a critical role in student success (Levine, 2002); teachers can support student self-esteem by reducing competition, eliminating student ranking, and reminding students that wrong answers and misconceptions are valuable opportunities for learning (Brumbaugh & Rock, 2001; Tobias, 1993). Teachers can also create a classroom culture that emphasizes multiple solutions to problems, conceptual understanding, and an appreciation of mathematics as a tool for thinking and reasoning (NCTM, 1990; Tobias, 1993).

It is the responsibility of teachers to help all students achieve academically. Reducing anxiety towards mathematics is one way that teachers can help their students succeed in mathematics. Research indicates that proper teacher training and ongoing professional development, as well as utilization of some of the specific practices recommended by the NCTM, can be beneficial in addressing the problem of mathematics anxiety. Teachers can make changes both inside and outside of the classroom to help alleviate the problem of mathematics anxiety and help all students achieve in mathematics.

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Closing the Achievement Gap for Children of Alcoholics

by Angela Preston-Mortinson

Alcoholism is a chronic condition that affects millions of people and has profound impacts on families of alcoholics, in particular children. Children of alcoholics can be adversely affected when one or more parents suffer from alcoholism. It can be difficult to identify children of alcoholics within the classroom, because they may or may not display signs of coming from an alcoholic home. Children of alcoholics often take on certain roles within the family that keeps the family system running. It is important for educators to become familiar with the signs that a child may be living in an alcoholic home so they may be better able to serve him or her.

Introduction

With an estimated one out of every four children living with an alcoholic before the age of eighteen (Grant, 2000), it is most likely that all teachers will have children of alcoholics within their classrooms. Living in a home with alcoholism can be quite difficult. Children of alcoholics may be adversely affected by their parents’ disease and in turn take on certain roles in order to survive their circumstances (Devine & Braithwaite, 1993, p. 69). The roles are often labeled: The Family Hero, The Lost Child, The Placater, and The Mascot (Black, 1981; Deutsch, 1982, p. 57; Webb, 1993). The children who take on these roles act them out within the classroom, which can hinder their academic success.

Alcoholism has been researched and discussed for quite some time. Although stigma remains around this disease, it has been accepted as a huge social problem that is worthy of attention. It has also been found that alcoholism affects all types of people. It does not discriminate on the basis of race, ethnicity, socioeconomic status, gender, religion, or sexual orientation. It also holds true that the children of alcoholics come from all walks of life. They are as varied as any other group of people.

There are many tools for diagnosing alcoholism, but more resources are needed in order to identify children of alcoholics. Children of alcoholics may be disruptive, withdrawn, or highly visible in the classroom. More research is needed about how to reach children of alcoholics, because many can be helped with proper intervention (Grant, 2000, p. 122). The daily contact that educators have with children of alcoholics gives them a unique opportunity to help these students.

This paper will describe the disease concept of alcoholism and how children within the home are affected. It will also describe, in detail, the survival roles children of alcoholics adopt and how they play out in the classroom. The emphasis of this paper is on educating teachers so they may be better able to recognize children of alcoholics and be better able to provide them opportunities for success in life and academics.

The scope of research available about children of alcoholics within the classroom is somewhat limited. A great deal of research was done in the 1970s and 1980s, but studies that are more recent would be helpful. One limitation of this paper is the little information provided about Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effect (FAE). Children living with FAS and FAE are often placed in special education classes due to either physical or behavioral limitations. FAS and FAE need the attention of educators in order to enhance their educational opportunities (Streissguth, 1997). There is brief mention of FAE and FAS within this paper, but its primary focus is on the effects of children experiencing alcoholic parents in the home.

Literature Review

Alcoholism

Alcohol dependence (sometimes referred to as alcoholism) is a disease that includes the following four symptoms: craving—a strong need, or urge, to drink; loss of control—not being able to stop drinking once drinking has begun; physical dependence—withdrawal symptoms, such as nausea, sweating, shakiness, anxiety after stopping drinking; tolerance—the need to drink greater amounts of alcohol to get “high” (National Center on Addiction and Substance Abuse at Columbia University, 2006, p. 62).

People in what is now the United States of America have had concerns about alcohol use about as long as there have been Europeans in North America (Kilty & Segal, 1998). The cause of alcoholism has been a source of debate. It was very much thought to plague those with low moral standards and a weak will. Benjamin Rush, a physician who originated the disease concept in the 1700s, claimed that drunkenness led to poverty and disobedience. He ultimately thought of alcoholics as anti-republican and unpatriotic (Kilty & Segal, 1998).
In the 1880s, the notion that alcoholism may have biological roots became more mainstream, but the moral element was and still is prevalent in people’s conceptions about alcoholism (Kilty & Segal, 1998). Alcoholics Anonymous was founded in the 1930s by Bill W. and Bob S., following the Failure of the National Prohibition in the early 1930s (Kilty & Segal, 1998). Alcoholics Anonymous is a fellowship of men and women who get together to solve their common problem of alcoholism (Alcoholics Anonymous World Services, 2001). Dr. William D. Silkworth, a well-known doctor of the early 1900s, promotes the disease concept in the book Alcoholics Anonymous, also known as the “Big Book.” He describes alcoholism as a manifestation of a sort of chronic allergy, one with a type of craving that does not occur in moderate drinkers (Alcoholics Anonymous World Services, 2001). The belief that alcoholism is a disease has led to more opportunities for alcoholics to receive medical treatment (Typpo & Hastings, 1984).

The National Longitudinal Alcohol Epidemiologic Survey, 1992 (NLEAS) was a landmark study sponsored by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the U.S. Department of Health and Human Services (Stinson et al., 1998). In Bridget Grant’s article “Estimates of US children exposed to alcohol abuse and dependence in the family,” she uses the data from the NLEAS to interpret that one of every 2.3 children under the age of eighteen have lived in a home with at least one adult who had abused or been dependent on alcohol sometime in their lives. She found that about one of every 6.6 children had lived with at least one adult who had abused or was dependent on alcohol within the year before the survey. After she took into account other factors she estimated that at least one of every four children have lived with at least one alcohol dependent or alcohol abusive adult (Grant, 2000).

Children of Alcoholics

Children of alcoholics may be the victims of birth defects due to their mother’s alcohol consumption, be deprived of emotional and physical support, avoid activities with peers out of fear and shame, lack trust, have a sense of low self-worth, learn destructive and negative methods to deal with their experiences in order to get much needed attention (Ackerman, 1983, p. 27; Sher, 1997). They may suffer from emotional, physical, and sexual abuse. Parental alcoholism is a predictor in childhood behavior problems both directly, through genetic and modeling effects, as well as indirectly through parental distress and parental physical problems (Schwartz & Liddle, 2001). Children of alcoholics are familiar with a wide range of alcoholic products at a younger age that causes them to develop alcohol schemas earlier, which also includes the likelihood that they believe that alcohol will make them feel better (Ellis, Zucker, & Fitzgerald, 1997).

Alcoholic families, compared to nonalcoholic families, often experience a higher level of conflict, lower levels of cohesion, impaired problem solving, and an increased occurrence of hostile communication. Children from these homes often face increased physical health problems, increased anxiety, use of alcohol and other drugs, and demonstrate a higher level of delinquency than their nonalcoholic counterparts (Grant, 2000, p. 112).

Fetal Alcohol Syndrome (FAS) is caused when the mother drinks alcohol while pregnant. FAS causes emotional and conduct problems in childhood and adolescence and often alcoholism in adulthood (Sher, 1997). Children with FAS often display a lack of remorse and understanding of cause and effect relationships. FAS has physical characteristics such as: low birth weight, a thin upper lip, wide space between eyes, underdeveloped philtrum, joint abnormalities, cardiac abnormalities, abnormalities of the external genitalia, limb deformities, and ear anomalies (Lewis & Williams, 1986, p. 25). Children may also suffer from Fetal Alcohol Effect (FAE), which is diagnosed when they have some, but not enough symptoms to be diagnosed with FAS. FAS and FAE can lead to conditions such as ADD and ADHD. These conditions have to be considered when dealing with behavior disordered children (Streissguth, 1997).

Children of alcoholics often feel less personal responsibility and control over the events that shape their lives. They often lack initiative and achievement in functioning in the world because of the feeling that they are under the control of the alcoholic family system (Post & Robinson, 1998). They have been thought to be substantially more likely to use two unique coping mechanisms: reversed emotive coping, when they focus on the emotions of others rather than themselves and reversed confrontative coping, when they focus on comforting others rather than seeking comfort for themselves (Kelly & Myers, 1996, p. 501).

Children of alcoholics frequently feel feelings of shame and guilt. Guilt may arise when the child feels that they have done something bad, while they feel shame because they think they are bad, inadequate, defective, and unworthy (Curtis, 1999, p. 76). They may judge themselves harshly because of low self-esteem and are often terrified of abandonment. They often react rather than act and confuse pity with love (Page & Page, 2000, p. 205). Children who
experience physical, emotional, verbal, and sexual abuse often feel ashamed and guilty (Curtis, 1999).

**Roles within an Alcoholic Family**

Children living in alcoholic homes are adversely affected by the disease. They adopt certain roles in order to protect themselves. The roles seem to have a rigid set of defenses and compulsive behaviors. Although these roles serve them while growing up, they often cause them to be dysfunctional adults (Devine & Braithwaite, 1993, p. 69). The roles children of alcoholic families take on are often summarized as: The Family Hero, The Scapegoat, The Lost Child, The Placater and The Mascot (Black, 1981; Deutsch, 1982, p. 57; Webb, 1993).

A child who might be described as The Family Hero often takes care of what should be the adult’s responsibilities. Some believe that they may solve the families problems by being overly responsible (Webb, 1993). This role often causes his or her childhood to be taken, in addition they are often unrecognized as children in need of help (Kroll, 2004, p. 136). The Family Hero often takes care of household chores, the care of younger siblings, as they tend to be the oldest. They tend to be perfectionists and may set unrealistic achievement goals for themselves (Black, 1981; Webb, 1993). They may also seem bossy and/or parental in their interactions with friends (Page & Page, 2000).

The family function of The Scapegoat is opposite of The Family Hero. The Scapegoat is often blamed for the family’s problems. They tend to take responsibility for the family’s problems by being self-destructive. They may run away, use drugs/alcohol and/or engage in other destructive activities. In the classroom these students may be the “troublemakers” or act sullen. They often hide their feelings of rejection behind anger (Webb, 1993).

The Lost Child of the family is often the middle child. Seeing how The Family Hero and The Scapegoat are high attention roles, The Lost Child tends to try to avoid causing the family any more stress by being silent and invisible. They are agreeable and often intensely shy. They rarely speak strongly and often speak after the recognized leaders are finished. Passive resistance is their mode of operation. They frequently live in an isolated fantasy world. To enhance their isolation some children in this role may develop somatic and psychological problems such as: impaired hearing, stuttering, learning disabilities, and in extreme cases, schizophrenia (Deutsch, 1982).

A child who acts as The Placater is often considered the most emotional child of the family, even though this is not necessarily the case. They tend to try to make life better for the rest of the family. He or she is often described as a “nice” person; he or she listens well and displays empathy. The Placater very rarely disagrees with anyone and often apologizes. They are characterized as well-liked because their focus is on making things nicer for people (Black, 1981).

Children who act as The Mascot tend to be the youngest. They tend to try to break tension within the home by trying to be humorous. These children often laugh and joke in inappropriate ways in an attempt to get the attention they need. They are often identified as the class clown. Children in these roles try to uplift the problems by making people laugh (Webb, 1993).

Another study used the Child Behavior Check List (CBCL) to compare a sample of 103 Danish children of alcoholics to Danish children of nonalcoholics. The study found that in families with maternal alcoholism, daughters displayed a higher occurrence of emotional disorders and that sons in families with paternal alcoholism displayed a higher occurrence of conduct disorders. The occurrence of both conduct and emotional disorders occurred at the same frequency in children from a two alcoholic parent family. The study also found that almost half of the children of alcoholics studied functioned as well as the children of nonalcoholics within the sample (Christensen & Bilenberg, 2000).

**Children of Alcoholics at School: What to Look For**

Children of alcoholics may or may not exhibit certain characteristics. Not all children of alcoholics will display all or perhaps any of the following traits, but knowing what to look for will be helpful when identifying and eventually helping such students. Physical appearance may be an obvious sign that something is not right at home. Children may come to school in dirty or torn clothes and not have adequate personal hygiene. The appearance of a child of an alcoholic may change throughout the week. For example, Mondays they may be particularly “sloppy” due to a chaotic weekend home environment and more put together throughout the rest as the week after the family recovers from weekend use (Ackerman, 1983).

A child’s bodily appearance may also give educators clues into abuse, which is common in alcoholic homes. Physical abuse may leave children with bruises, scratches, and other marks. An avoidance of physical education may also indicate the child’s wish to hide their physical condition. Physical abuse may be visible to the naked eye, but it may also take a trained professional to identify strains and other injuries. School faculty should watch these children closely and report suspected...
abuse to the proper authorities (Ackerman, 1983, p. 100).

Erratic academic performance may also be also an obvious indicator that a child is experiencing difficulties at home. A child of an alcoholic may do well when their home lives are calm and not well when it is chaotic. Some children may do well all day then they lose attention and become withdrawn toward the end of the day when it is time for them to go home (Ackerman, 1983).

Children of alcoholics may often be “loners;” they may also have one or two friends. Some children may be affected by what their parents and others have said about their peer’s alcoholic parent, they may be told to avoid contact with this child. They may be silent in class, walk alone, play at recess alone and eat lunch alone. On the other hand, children of alcoholics may be the class clowns in order to get much needed attention. The previous signs may identify children of alcoholics, but a teacher must be careful not to label too quickly. On the contrary, children of alcoholics are individuals and look differently. Some may be popular, perform well and look clean and well dressed. Children of alcoholics cope with their parental alcoholism by hiding and acting as “normal” as possible. Many children from homes with other problems may exhibit the same behaviors, so a child with the above characteristics does not mean that they are definitely from an alcoholic home (Ackerman, 1983, pp. 98-99; Knight, 1993; Price & Emshoff, 1997).

Screening tools may also be helpful when trying to identify children of alcoholics. The Family CAGE: An Alcoholism Screening Test is a widely used screening test that asks children four questions regarding parental drinking. The Family CAGE is not used to diagnose, but to screen for parental alcohol use (Price & Emshoff, 1997). A more in-depth screening tool is the Children of Alcoholics Screening Test (CAST). CAST is a thirty-question test that asks about the respondent’s attitudes, feelings, perceptions, and experiences related to their parents’ drinking behavior and is used to identify both young and adult children of alcoholics. A shorter version is often used within the schools due to staff and time constraints (Black, 1981; Price & Emshoff, 1997).

Children of alcoholics have been found to have lower verbal intelligence, perceptual and motor skills, planning and the ability to think abstractly scores (Pihl & Bruce, 1995, p. 144). Although testing scores may be lower, it does not mean that children of alcoholics are intellectually impaired (Collins, Leonard, & Searles, 1990; NACoA, 2001). Many factors, such as accessibility, must be taken into consideration when using data derived from test scores (Pihl & Bruce, 1995).

A Teacher’s Role

A supportive, positive relationship with at least one adult caregiver can help moderate the effects of growing up in an alcoholic family system (Cavell, Meechan, Heffer, & Holladay, 2002, p. 24). “It is essential to spare children from the unnecessary years of silence, shame, and suffering caused by parental addiction. Through effective prevention measures, educators can play a major part in this process” (NACoA, 2001). The National Association for Children of Alcoholics published “A Kit for Educators,” it states that educators can help children of alcoholics without identifying them, simply by making themselves available to all students and by providing age appropriate alcohol and drug education (NACoA, 2001, p. vi).

Page and Page (2000) suggest that once teachers recognize children of alcoholics within their classrooms they can help the student by assisting them in gaining an understanding of which role he or she may be acting out. They suggest that teachers can help The Family Hero learn to balance work and play and identify their needs by teaching them to ask for help, limiting the child classroom responsibilities, giving the child positive attention when the child is not achieving, helping the child understand that it is okay to make mistakes, teaching relaxation techniques, suggesting that the child pay attention to what they need and want, validating the child’s worth based on who they are not what they do, giving attention to the child when he or she participated as a follower, not a leader, and by organizing and participating in social and recreational activities (Page & Page, 2000, p. 206).

Children living in the role of The Scapegoat need help in dealing with his or her anger. A teacher can help these students by teaching the child constructive way to deal with his or her feelings, emphasizing the importance of being accountable for one’s action instead of blaming it on others, affirming a child when he or she takes responsibility, applying logical consequences as necessary, developing an understanding of how the child acts in order to avoid getting angry about it, providing help in developing social skills, treating the child equally, and by not agreeing when the child blames others (Page & Page, 2000, p. 207).

Educators may encourage a child in The Lost Child role realize that he or she is important. Teachers can help these children by taking an inventory of children whose names are hard to remember or who appear to be lonely, making an effort to notice and interact with the child, finding out
more about him or her, supporting the child in making friends, having the child work in small groups in order to build trust and community, encouraging the child to speak for himself or herself, and by treating the child in the same manner they treat other students (Page & Page, 2000, p. 208).

Children who are The Mascots in their families and The Clown at school need to learn to receive attention in appropriate ways. Teachers can help students in this role by giving the child attention when they are not trying to be funny or overactive, giving the child responsibilities within the classroom, talking to the child one on one about acting appropriately, encouraging an apposite sense of humor, not laughing at their attempts to be funny, and by remembering that acting out and being funny are done in an effort to mask fear and sadness (Page & Page, 2000).

Educators must work within school, legal, ethical and professional parameters and must be aware of their own limitations in deciding what to do or not do with students. School counselors, school psychologists, or school social workers are people who can support educators when they need assistance in dealing with issues of children of alcoholics (NACoA, 2001). Many educators are aware of children of alcoholics within their classrooms, but are unsure of how to help them. Training is recommended for school staff in order to help affected children (McKellar & Coggans, 1997). Trained teachers have been considered essential to children of alcoholic directed prevention and intervention efforts (Knight, 1993).

Conclusion

Alcoholism is a disease that often includes a craving for alcohol, loss of control while drinking, alcohol dependence, the development of a tolerance to alcohol, and physical withdrawal. A mother’s alcohol consumption while pregnant may lead to Fetal Alcohol Syndrome or Fetal Alcohol Effect, which can cause physical deformities and/ or behavioral problems. Children who have not been affected by parental alcohol consumption while in their mother’s womb may still be affected emotionally by being deprived of emotional and physical support. They may avoid activities with peers out of fear and shame, lack trust, have a sense of low self-worth, learn destructive and negative methods to deal with their experiences and to get much needed attention (Ackerman, 1983, p. 27; Sher, 1997).

In order to cope with alcohol abuse within the home children may be likely to enact certain roles within the family. The roles are often labeled: The Family Hero, The Lost Child, The Placater, and The Mascot (Black, 1981; Deutsch, 1982, p. 57; Webb, 1993). Children may act these roles out within the classroom, taking on the appearance of a “class clown,” an “introvert” or an “overachiever.” Educators can support children of alcoholics by providing them with consistency and a safe classroom environment. Teachers may also reach children of alcoholics by providing them with age appropriate alcohol and drug education (National Center on Addiction and Substance Abuse at Columbia University, 2006, p. ix).

Assessment tools may be used to identify children of alcoholics, but many will go unrecognized. Knowledge of ethical and professional parameters is important when determining how to help children of alcoholics. Educators must know their own limitations and enlist outside help as needed. Professional development is needed for educators, as most will have children of alcoholics within their classrooms at some time.

Research about children of alcoholics has been quite limited historically. Most of the available research has been done within the last forty years. One previous idea was that children of alcoholics had limited intellectual capabilities, but that theory has not been found to be true. Since people have many preconceptions about children of alcoholics, further research will be useful in providing the public with a more accurate picture of children of alcoholics. Long-term case studies would be helpful when trying to determine what communication methods teachers have found successful when working with children of alcoholics.

Recommendations for Practice

For educators interested in providing a safe, consistent environment for all of their students, particularly children of alcoholics, many things can be done to help. Teachers should realize that they have a unique opportunity to be a safe adult in children’s lives. Children who are dealing with a stressful home life will benefit by a teacher’s readiness to help them cope. Beyond information in the Teacher’s Role section of this paper, teachers may further help children of alcoholics by adhering to the following practices to promote and becoming familiar with a few cautions:

Practices to promote:

- Familiarize yourself with protocol for referring children of alcoholics to professionals
• Keep a library of age-appropriate books, pamphlets, and brochures on addiction-related issues
• Make sure the child knows she is not alone, she did not cause the problem, she cannot control the behavior, and that she is valuable
• Help student think of important adults in his or her life who may be able to help
• Direct student to local Alateen group (a group of children of alcoholics who come together to support each other)
• Educate yourself and be sensitive to cultural differences
• Realize that children from addicted families may be threatened by physical contact
• Make time and space for students to rest
• Educate students that it is beneficial to express feelings in general and especially about parental substance abuse
• Help children of alcoholics understand that they are at risk for alcoholism
• Being consistent and providing stability will allow for the development of trust

Cautions:

• Make sure to not act embarrassed or uncomfortable when a student asks for help as this may discourage a child from seeking further help
• Do not criticize the child’s parent or be overly sympathetic, just listen
• Only share information with individuals who need to know
• Do not make commitments with a child you cannot keep
• Realize you are the student’s teacher, not her counselor unless you are trained and employed to be

Educators may take special care when interacting with children of alcoholics while not singling anyone out. Awareness and familiarity of all students in the classroom will enable teachers to be of greatest service. Knowing what to look for is the first step in recognizing students in need of help. General education about addiction that is taught to the entire class may reach students who face the problem while letting them know that the teacher is available and has access to needed resources.

References


Community Connection in Elementary Education

by Lynn Risenhoover

More educators are connecting learning to the community in order to foster both sustainable stewardship and lifelong learning. Research finds that facilitating an attachment to place promotes a holistic, interdisciplinary approach to learning. This approach affords students the opportunity to develop the sensitivity and awareness necessary to foster their motivation to learn about and care for their community. Findings also suggest that community projects help students gain critical thinking skills and learn action research skills using a content and context to which they can relate. Research finds that pedagogy of place enhances a child’s learning competence and subsequent desire to learn.

Introduction

Environmental educators and research scientists heed the importance of helping children embrace a sustainable stewardship. Teachers today, however, are already faced with challenges to facilitate education practices that foster life long learning. This paper investigates the question: In what ways do teaching practices that connect learning to the community foster both sustainable stewardship and lifelong learning? It does so by first considering the history of environmental education and then investigating how environmental education affects young children and their sense of place. This paper looks at how environmental education can create biophobia on one hand but a sense of wonder and competence on the other.

Scientific research promotes an understanding of the complexity and interrelatedness of global ecological systems. In turn this knowledge creates more awareness of the vast depredating impacts that concentrated urban societies are imposing upon earth’s systems. Most scientists agree that humankind can no longer continue to consume and produce at the present rate as the population continues to grow. In 1987 the World Commission on Environment and Development (WCED), referred to as the Bruntland Commission, proposed a strategy they hoped would simultaneously facilitate development while minimizing poverty and the degradation of earth’s resources. Sustainable development was defined as “development that meets the needs of the present without compromising the ability of the future generations to meet their own needs” (WCED, 1987, p. 8).

The report of the Brundtland Commission led to the United Nations Conference on Environment and Development in Rio de Janeiro in 1992. An outcome of the Earth Summit was Agenda 21, a comprehensive plan of action adopted to be utilized by global, national and local organizations of the United Nations System, governments, and major groups in every area in which humans impact the environment (UNCED, 1992). From this evolved the Treaty on Environmental Education for Sustainable Societies and Global Responsibility which highlighted the importance of viewing the environment within the context of human influences. This perspective expanded the emphasis of environmental education, focusing more attention on social equity, economics, culture, and political structure (North American Association for Environmental Education, 2000).

The North American Association for Environmental Education’s (NAAEE) recent guidelines for environmental education confessed that environmental literacy is not a goal that is easily reached:

We are asking individuals to go beyond fact by fact, piece by piece examination of our environment and begin to understand and think in terms of systems bound together. We are asking individuals to develop a sophisticated set of skills that allow them to solve novel environmental problems and determine the best set of actions. We are asking individuals to become thoughtful, skilful and active citizens in a democracy. (NAAEE, 2000, p. 3)

This goal is not restricted to environmental education but is becoming more and more embraced by the education system as a whole. Effective teaching no longer entails just knowledge-based assessment but also requires helping students gain critical thinking skills that motivate them to become lifelong learners capable of connecting their understandings through community, regional and global geographic perspectives.

As the demographics of student populations become more culturally diverse, educators realize also that conventional teaching methods fail to reach a large portion of the students; regardless, schools, teachers, and students are being held accountable to ensure all students achieve academically by state standardized testing practices. Consequently teachers have begun to recognize they must promote experiences that make learning meaningful for all children.
As a result, teachers are being forced to reevaluate their teaching practices, changing instruction from teacher-centered to student-centered practices and from single disciplines to a more integrated interdisciplinary approach that values different learning styles.

Concurrently, many educators have begun to move beyond “environmental education.” They feel the process has lost its original definition and instead has become replaced by an independent short-term subject approach that looks at isolated catastrophic issues (Hart, 1997; Lieberman & Hoody, 1998; Orr, 1994; Sobel, 2005). They proposed instead a “pedagogy of place” that supports student connection to the local community and in so doing promotes a systematic interdisciplinary approach in which students have the opportunity to learn action research skills in a context to which they can relate. In this way, educators argued, students will be encouraged to believe their learning can make a difference to their livelihood. Hart (1997), Lieberman & Hoody (1998), Orr (1994), and Sobel (2005) believed this pedagogy fosters both lifelong learning and responsible environmental sustainable behavior.

Place-based education is a relatively new term that has appeared in the literature over approximately the last ten years (Hutchinson, 2004; Sobel, 2004; Woodhouse & Knapp, 2000), but it refers to the same principles as a pedagogy of place. Others have referred to it as community-based education (Haluzak-Delay, 2001; Tal, 2004) and EIC-based learning (Using the Environment as an Integrating Context) (Lieberman & Hoody, 1998). The concept, however, was originally embraced by John Dewey who believed that “the difference between the aesthetic and the intellectual is thus one of the place where emphasis falls in the constant rhythm that marks the interaction of the live creature with his surroundings” (Dewey, 1934; as cited in Palmer & Neal, 1994, p. 12).

Place-based education emphasizes hands-on, real world, collaborative learning experiences using the local community and environment through interdisciplinary subjects (Lieberman & Hoody, 1998; Sobel, 2004). Students explore how “landscape, community infrastructure, watersheds, and cultural traditions all interact and shape each other through interpretation of the history, folk, culture, social problems, economics, and aesthetics of the community and its environment” (Sobel, 2004, p. 4). Essentially, place-based educators believe that education should prepare people to live and work to sustain the cultural and ecological integrity of the places they inhabit (Woodhouse & Knapp, 2000). Although this framework is a recent interpretation of education, Woodhouse and Knapp (2000) agreed that it recaptures the ancient idea of “listening to the land and living and learning in harmony with the earth and each other” (Bigelow, 1996, p. 17).

This paper recognizes that teachers today are responsible for facilitating educational experiences that foster both lifelong learning and sustainable stewardship. This requires that teachers provide learning that helps students comprehend a systems approach, acquire the motivation to want to care for the environment and to want to learn, and helps students gain the transformative action reflection skills needed to know how to do so. An analysis of literature evaluates what this entails in elementary education and reviews how “pedagogy of place” can foster its effectiveness.

Research in the field of environmental education has been dominated by the field of science (Dillon, 2003; Gough, 2002) and by the notion that the ultimate aim of education is to “shape human behavior” (Hungerford & Volk, 1990). Studies have primarily investigated characteristics of students such as students’ attitudes and knowledge, but few have looked at the way learners make sense of their learning (Dillon, 2003) especially in the elementary grade levels (Hart & Nolan, 1999; Hart, 2003; Rickinson, 2001; 2006). Since the amount of quantitative research about what happens in the classroom is limited (Hart & Nolan, 1999; Hart, 2003), educators cannot make definitive statements about what children take away from various experiences either immediately or in the longer term. Subsequently, this paper is limited to theories that are based primarily on qualitative research such as case studies and narrative studies as well as anecdotal interpretations of observations taken by researchers and teachers while facilitating student learning. A table of definitions (Table 1) has been included to help the reader navigate through this term-laden literature.

A Review of Literature

Historical Perspective

Environmental education was first defined by William Stapp and his graduate students at the Department of Resource Planning and Conservation School of Natural Resources in 1969. This process was aimed at “producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to solve these problems, and motivated to work toward their solution” (Stapp et al., 1969, p. 31). As the United States progressed toward an urban nation, Stapp and his students recognized the need for students to not only maintain an awareness of their connection to the earth and understand how their
Table 1.  
**Definition of Terms in the Literature.**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Biophobia</td>
<td>An aversion to nature (Wilson, E. O., 1984).</td>
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<tr>
<td>Biophysical Environment</td>
<td>Natural environment (Stapp et al., 1969).</td>
</tr>
<tr>
<td>Built Environment</td>
<td>Cultivated environment including constructed communities, transportation systems, and resource development (Stapp et al., 1969).</td>
</tr>
<tr>
<td>Ecophobia</td>
<td>The fear of being outside and/or the rejection of environmental responsibility due to feelings of overwhelmed hopelessness caused by over exposure to global environmental catastrophic issues that the individual can do nothing about (Sobel, 1998).</td>
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<tr>
<td>Locus of control</td>
<td>An individual’s belief that he or she can or cannot contribute effectively (Hungerford &amp; Volk, 1990).</td>
</tr>
<tr>
<td>Place-based education</td>
<td>Process of education that emphasizes hands-on, real-world, collaborative learning experiences using the local community though interdisciplinary subjects (Lieberman &amp; Hoody, 1998; Sobel, 2004).</td>
</tr>
<tr>
<td>Sense of place</td>
<td>A land ethic: an awareness and motivation to practice sustainable living (Hart, 1997; Orr, 1994; Sobel, 2004; Vaske &amp; Kobrin, 2001).</td>
</tr>
<tr>
<td>Sense of wonder</td>
<td>A child’s innate curiosity to understand his or her relationship with the natural world (Hart, 1997).</td>
</tr>
<tr>
<td>Sustainable Development</td>
<td>Development that meets the needs of all populations without compromising the ability of future generations to meet their own requirements (WCED, 1997).</td>
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livelihood is dependent upon proper management and use of its resources, but to also be aware of and understand their connection and responsibility to their community and its associated problems.

At that time the publication of Rachel Carson’s book, *Silent Spring*, had not only exposed hazards of the pesticide DDT but had caused a profusion of public concern over the health and quality of the environment. Lack of comprehensive environmental planning, indiscriminate use of pesticides, traffic congestion, community blight, and air and water pollution were a few examples of problems in urban communities at the time. While Stapp and his graduate students noted these problems were legitimate concerns of community government and planners, the responsibility for their solution rested, they felt, to a large extent, with citizens (Stapp et al., 1969). They recognized that conservation education at that time primarily facilitated student awareness of earth’s resources; the more local community environment and its associated problems were not acknowledged. Furthermore, they were concerned that few programs emphasized the role of the citizen in working toward the solution of problems. In order to accomplish this task, Stapp and his graduate students felt environmental education needed to encourage students’ knowledge and understanding of both the natural and built components of the environment and to help them conceptualize the interrelatedness of all parts with a clear understanding that society and culture together play an integral part in the system. What’s more, they felt that for environmental education to achieve its greatest impact it must not only provide factual information but it must also develop the disposition of concern for environmental quality to motivate citizens to accept responsibility and work towards solution to problems. At the same time they felt students needed to learn how they can play an effective role in achieving the goals derived from their attitudes (Stapp et al., 1969). It was clear that Stapp and his graduate students felt citizens must not only be aware of strategies that can be used to deal with their community problems but should also be actively engaged in working toward their solution.
A widely accepted international goal statement for environmental education, The Belgrade Charter, incorporated many of Stapp’s concerns and was adopted by the United Nations conference. It was agreed that the goal of environmental education is to:

- develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward the solutions of current problems and the prevention of new ones. (UNESCO, 1975)

Two years later in 1977 the world’s first intergovernmental conference on environmental education adopted the Tbilisi Declaration. Building on the Belgrade Charter the declaration established three broad objectives which some feel provide the foundation for much of what has been done in the field since 1978 (NAAEE, 2000):

1. To foster clear awareness of and concern about economic, social, political, and ecological interdependence in urban and rural areas;
2. To provide every person with opportunities to acquire the knowledge, values, and attitudes, commitment, and skills needed to protect and improve the environment;
3. To create new patterns of behavior of individual, groups, and society as a whole towards the environment. (UNESCO, 1977)

Approximately forty years ago environmental education was defined to be a process, not a subject, that stressed the importance of maintaining the awareness and understanding of connection to community and of utilizing a system approach that integrated social-economic, political, and cultural attributes within the built and natural biophysical framework. It was strongly felt then that students need not only learn the knowledge and skills to play an effective role but also that by acquiring the disposition to accept responsibility, they would be more inclined to be aware of strategies they could utilize to deal with problems and actively engage in working with other community members towards a solution. Interestingly, these characteristics appear very similar to the attributes cited as required to achieve sustainable responsible behavior today (NAAEE, 2000). Furthermore, the guiding principles agreed upon at the Tbilisi Declaration, thirty years ago, implied that the process of environmental education should engage students in interdisciplinary, inquiry, problem-solving, action based activities with a focus on real environmental issues. Students should become active thinkers and generators of knowledge (UNESCO, 1975, 1977). It also stated that the process should relate environmental sensitivity, knowledge, problem-solving skills, and values clarification to every age, but with special emphasis in students’ early years on environmental sensitivity to the learner’s own community (UNESCO, 1977).

Literature has recognized that the definition and guiding principles agreed upon for environmental education thirty to forty years ago are not being practiced in most classrooms globally today (Dillon & Teamey, 2002; Hart, 2003; Palmer & Birch, 2005). Mappin & Johnson (2005) believed there has been a tendency to add environmental education into science or geography curricula or to teach it as an added elective when possible instead of integrating the approach through the curricula. Sobel (1999) speculated most environmental education in the United States elementary grade levels lasts a matter of weeks. As a result, he has been concerned that depth is sacrificed to breadth and that there is little opportunity for immersion in the landscape (Sobel, 1999).

Environmental Education and Young Learners

A meta analysis of over 100 journal articles, books, and reports published on subjects related to environmental education between 1993 and 1995 (Rickinson, 2001) found limited research done on student learning and teaching practices in elementary education. Investigation of the research available, however, found dissonance between what research believed young children were capable of understanding and what findings proved otherwise. Rickinson noted that while Palmer et al. (1996) concluded that many young children around six years old were capable of quite sophisticated thinking, reasoning, and participating as active thinkers in the realm of environmental issues, other studies found children often had broad misconceptions about distant environments and various local and global issues (Palmer, 1995, 1999; Palmer et al., 1996; Glazer et al., 1998). Rickinson noted as well that while Strommen (1995) recognized that primary aged children had an impressive store of knowledge of different types of animals, plant, bugs, and other organisms, Rickinson’s own findings were that their notion of what types of animals lived in forests was often inaccurate. For example, children were apt to include sharks, whales and dolphins as well as favorite zoo animals like lions, giraffes, and elephants as forest dwellers. Rickinson found this concurred with Palmer’s observations that children commonly included temperate wooded creatures and...
Causes or sources of misconceptions might relate, Rickinson thought, to misinterpretation of fragmented pieces of information and ambiguous terminology from various different sources, such as media, text books, and parents. As children construct their own understandings of different fragmented bits of knowledge, misconceptions could be easily internalized. Use of ambiguous terminology in lessons and resources may foster confused and imprecise thinking on the part of the student (Rickinson, 2001).

Educators have historically assumed that students could be motivated to act in an environmentally responsible way by exposing them to facts and information about global environment issues (Dillon, 2003; Hungerford, 1996; Hungerford & Volk, 1990; Sobel, 2004; Vaske & Kobrin, 2001). Consequently, environmental education programs incorporated activity-based learning experiences to help children explore concepts and lessons about the natural world through direct experience and movement metaphors (role-playing activities that illustrated complex natural systems and relationships). These lessons were often organized around prepared weekly units of global environmental issues supplemented with content from science or geography textbooks and media information (Haskin, 1999; Palmer & Neal, 1994; Sobel, 1999). However, findings from a meta-analysis of 128 studies on responsible environmental behavior (Hines [Stone] et al., 1986-1987) suggested motivating determinants are much more intertwined with historic, socio-economic, political, cultural experiences (beliefs, attitudes, and demographic indicators) (Vaske & Kobrin, 2001). They found that an individual’s intention to act is influenced, therefore, by a number of variables including cognitive knowledge of not only environmental issues but also of potential effective actions and strategies as well as the skills to accomplish the task and the desire to act. This desire to act, Hines [Stone] et al. (1986-1987) noted, appears to be effected by a number of personality factors that influence attitude and feeling of responsibility, as well as by situation factors such as economic constraints, social pressures, and opportunities to choose different actions.

In response to these findings, Hungerford and Volk (1990) developed a model of determinants of responsible environmental behavior. The major “entry-level variable” is environmental sensitivity, which influences a person’s awareness and attitude to own the responsibility and be empowered to do something about it. Hungerford (1996) hypothesized that a person “owns” the issue when the problem becomes extremely important at a personal level. Before this can happen, an individual must understand the nature of the issue and its ecological and human implications. Knowledge, these researchers concluded, is important but until a student understands and is sensitive to the issue, he or she will not want to “own” the responsibility to care. Furthermore, Hungerford and Volk (1990) noted children must feel empowered to do so.

Empowerment variables are those skills and knowledge of environmental action strategies that enable individuals to believe that they have the power to use citizenship strategies to help resolve the issue (Hungerford & Volk, 1990). Teachers confessed that students develop a great deal of self-confidence when provided with the opportunity to learn and utilize action skills (Hungerford & Volk, 1990), but recognized that actions carried out without adequate knowledge of the issue do not likely lead to responsible behavior. For example, Hart (1997) noted that teachers often use materials provided by power companies to facilitate energy resource related units. Frequently these materials suggest energy wastage is a problem caused by household consumers and that children should learn and teach others to turn off the lights, turn down the thermostats and use less hot shower water. These lessons can be considered ethically acceptable only if, Hart noted, these implications are considered within the larger context of alternate sources of energy production and commercial waste of energy. In accordance with Hungerford and Volk, Hart (1997) emphasized that teachers need to help children develop critical analysis and reflection skills when evaluating environmental issues so that they do not become advocates for biased interpretations.

Essentially, in order for children to feel they have the power to carry out sustainable practices, Hart (1997) and Hungerford & Volk (1990) found students must learn the knowledge and skills needed to understand the issues and gain critical thinking as well as the analytical skills required to effectively evaluate the different economic, political, cultural, and ecological factors involved. Furthermore, they continued, for students to actually become motivated to care and believe that they have the power to have an impact on resource development they must learn action skills and be provided the opportunity to apply these skills successfully in the community (Hart, 1979; Vaske & Kobrin, 2001). This sense of competence or belief that one can or cannot contribute effectively is what Hungerford & Volk (1990) termed a person’s locus of control to carry out sustainable stewardship.
A Connection to Place

Vaske & Kobrin (2001) suggested that encouraging an individual’s connections to a community’s “natural place” (such as local park) facilitates development of the sensitivity, understanding, and empowerment Hungerford and Volk (1990) determined are needed to foster sustainable stewardship. Their research found that place dependence—the ongoing relationship with a particular setting, (e.g., summer youth work community programs at a local park)—may influence one’s place identity, an emotional attachment that may lead to a sense of belonging or purpose, which in turn might motivate one to care about the biophysical environment and live a more environmentally responsible everyday life (Vaske & Kobrin, 2001). This connection, Vaske & Kobrin (2001) concluded, may help individuals realize that their actions can make a positive difference in their own community and empower them to want to care about the outdoor environment. Educators, according to Vaske and Kobrin, could benefit from examining the meaning local places have for their students.

Hart (1979) made similar findings while investigating children’s use of outdoor space (their spatial behavior and land use, and their knowledge and feelings for places in their environment). Evidence supported his belief that children continue to exhibit a strong desire to manipulate the biophysical environment throughout childhood until around the age of twelve (Hart, 1979). He felt this process is very important to children’s developing conceptions of their effectiveness and therefore an important consideration to incorporate into school’s environmental learning process.

Stapp and his graduate students implied that fostering a connection and responsibility to the community was an important part of the process of environmental learning (Stapp et al. 1969). Although findings from a report written by the Advisory Committee for Environmental Research and Education for the National Science Foundation emphasized that “in the coming decade, the public will more frequently be called upon to understand complex environmental issues, assess risk, evaluate proposed environmental plans and understand how individual decisions affect the environment at local and global scales” (National Science Foundation, 2003; as cited in Cole, 2005, p. ii) there are those who looked beyond the individual, agreed with Stapp and his graduate students, and considered environmental stewardship to be not just an individual responsibility but a community responsibility (Hart, 1999; Orr, 1994; Sobel, 2004). The community-orientated mindset, they believed, needs to be integrated into our schools’ environmental education programs. Several authors posit that through community-based learning children and adults together can explore the historic cultural, socio-economic, and biophysical attributes of their community, become aware of the dynamic interdependence of these characteristics and gain a sense of place. Research found evidence to strongly suggest that a sense of place provides the awareness and motivation needed for adults and children to work together to solve environmental issues specific to the community (Hart, 1999; Hutchinson, 2004; Orr, 1994; Sobel, 2004).

Biophobia

Orr (1994) speculated that if responsibility for the weight of our earth’s environmental problems is imposed on the individual, it might actually lead to “biophobia,” an aversion to nature. E. O. Wilson (1984) theorized that humans have a natural affinity for life, a concept he called biophilia. Orr (1994) suggested that if this natural attraction is not encouraged nor given opportunities to flourish during a child’s early years of life, biophobia can occur. “Biophobia can range from discomfort in natural places to active scorn for whatever is not man-made or air conditioned” (Orr, 1994, p. 131). As society imposes more demand for individual accountability and responsibility for global sustainability, research suggested that biophobia could become more entrenched and immutable.

Sobel (1999) believed that biophobia has occurred in many modern classrooms. He emphasized that certain classroom practices which seek to increase student awareness of environmental problems may actually be alienating our children from, instead of connecting our children to, the natural world. Ecophobia, a term used by Sobel, “is the fear of rainforest destruction, acid rain, Lyme disease, or fear of just being outside” (Sobel, 1999, p. 5). He has been concerned that classes in elementary grades often supplement direct experience with nature with unit themes that expose children to stories of how resource exploitation continues to ecologically degrade earth’s rainforests, increase global warming, and negatively impact biodiversity. Educators have hoped awareness of this knowledge will encourage students to live a more environmentally responsible life. Sobel (1999) theorized, however, that just the opposite might actually have occurred. As we fill our classrooms with examples of environmental abuse, he predicted, we may be engendering a subtle form of environmental dissociation. Children need time to explore their outdoor environment to develop a sense of wonder, bond with the natural world, and establish a connection with their community (Hart, 1997; Orr,
Evidence of this was exposed during a study conducted in West Germany. Sobel (1999) explained how during the 1980’s a national concern about acid rain effects on forests, the ozone hole, heavy metal pollution in European rivers, the aftermath of Chernobyl and other environmental problems influenced the implementation of a curriculum that intended to raise the consciousness of elementary students to these issues. By informing students about the problems and showing them how they could participate in finding the solutions, the program hoped to create empowered global students. According to George Russell of Adelphi University, however, follow-up studies conducted some years later indicated just the opposite (Sobel, 1999). Evidence indicated that students instead felt hopeless and disempowered and appeared to turn away from, rather than face up to, participating in local attempts at problem solving (Sobel, 1999). If given the chance, on the other hand, to form a connection and responsibility to their community and its problems and to learn the knowledge and skills needed to work towards a solution, students are more likely to feel motivated to work with their community to solve the problem (Hart, 1997; Orr, 1994; Sobel, 2004; Stapp et al., 1969).

Sense of Wonder

Researchers claimed that, if we foster an attachment to place, teachers can nurture a child’s sense of wonder and develop the sensitivity Hungerford and Volk (1990) concluded is necessary to engage a child’s motivation to care for the environment (Chawla, 2003; Hart, 1997; Sobel, 1998). Hart found that children are innately curious about the natural environment and that “they struggle to understand their relationship to it as part of their desire to understand the meaning of life” (Hart, 1997, p. 18). As long as children feel safe and secure they will seek out natural landscapes (Chawla, 2003); their range of exploration into the community will be contingent on their age (Hart, 1979; Sobel, 1998). This period of exploration, ages five through eleven, which Chawla (2003) referred to as “enchantment with the world” (p.134), is believed to be the foundation of a child’s environmental awareness on which other experiences can build.

This time, according to Chawla (2003), entails more than just an excitement about nature. Children develop a cultural construction of nature as they learn to observe, understand, empathize with, and appreciate the value of the natural world (Chawla, 2003, p. 145). Environmental educators and activists attributed their commitment to live environmentally responsible lives primarily to two significant experiences; memorable experiences outdoors predominately at a young age and the influence of parents or other adults who facilitated their awareness of the value of natural places (Chawla, 1998, 1999; Palmer and Neal, 1994). The role of the adult, Chawla and Palmer & Neal concluded, is notably important.

Chawla (2003) surmised that children learn the value of nature through culture, role models and by the emphasis of care contributed by their school to the outdoor environment (Chawla, 2003; Hart, 1997; Sobel, 1998). The role of the significant adult, affirmed Chawla (2003), is to facilitate a child’s awareness and appreciation for the natural world; to show a child how to really look and see. This entails helping children bridge from their intimate relationships with their immediate outdoor environment into more social, economic and cultural connections with their neighborhood and community (Chawla, 2003; Hart, 1997; Sobel, 1998).

Through an analysis of neighborhood maps collected from children in the United States, England, and Caribbean, Sobel (1998) inferred a developmentally appropriate practice to enhance student connection to community, regional, and global learning. He found that the world of five and six year olds is generally small, contained, very close to home and dominated by sensory perception. Their maps, confined to the child’s home and yard, often include pets, sun, rainbows and lots of color. From ages seven to eleven Sobel found children to be predisposed to merging with and making geographical sense of the world around them. Their maps extend into the neighborhood and community. The child’s home becomes small and indistinguishable from the other houses. There is depth and definition to biophysical and built landscape features. Forts and hideouts are common. Sobel (1998) submitted that, by helping children learn the skills to observe, explore and discover within their developmentally appropriate geographic scope and perspective, teachers can foster that sense of wonder and attachment to place needed to motivate children to want to learn and care for the environment. Further, teachers can help children bridge their learning from immediate surroundings to community, regional and global understandings.

Competence and Culture

Some researchers have put forward that fostering awareness needs to occur also with the facilitation of the learning of action research skills in order to nurture a child’s learning competence. Hart (1997)
believed that children, even at the young age of four, involved in action research and reflection can work together as a community to solve authentic environmental issues. The scope and scale of action carried out by the children should, Hart found, develop appropriately according to the children’s needs and formative experiences. Four-year-old children, he concluded, are able to effectively carry out domestic environmental management practices and with increase in age the projects can become more complex and progress further into community. Hart found that twelve and thirteen year old children could benefit from strategic ecological research.

According to Hungerford and Volk’s (1990) environmental behavior model, how children feel about their competence has an overriding influence on their desire and capability to be involved in community projects. Research has shown how this locus of control can be influenced by social class or culture (Igoa, 1995; Macleod, 1987). Hart documented how teachers working with children in poor urban neighborhoods in Brazil subsequently first focused on building within the children a strong sense of identity within a culture (Hart, 1997). Only after children acquired a sense of belonging did the teachers begin to expect children to act effectively for themselves and for their community. The projects, according to Hart, focused initially on construction of expression of their cultural identity, with great emphasis on music, dance, and theater for in creating these events, Hart concluded, children face the history of their poverty and discrimination, a process that Freire (2006) said results in conscientization. Freire concluded that, as people learn the historical truth of their cultural identity, they first become aware that they are rooted in a suppressed situation. Then with guided help they are able to gain the skills needed to critically reflect upon this state, perceive it as an objective problematic situation, and then gain the competence needed to change their situation.

Research into methods to make science more culturally relevant to urban immigrant students has shown that in using an oral history model children and teachers are able to gather community “funds of knowledge” (Moll & Gonzales, 1992, p. 983) about subjects to be studied in the classroom (Hammond, 2001; Merino & Hammond, 1998). For example, an urban elementary school in California was able to tap into the American Mien’s (Southeast Asia) rich knowledge of the natural world gathered through many generations of growing their food. By expanding the class study of plants to the creation of family community gardens, the project allowed limited English speaking parents from both Southeast Asian and Mexican communities to teach the children gardening (Merino & Hammond, 1998). Studies concluded that students’ learning competence was enhanced as they constructed their awareness and understanding of ecological concepts relevant to their cultural identity.

**Conclusion**

Connection to the community has been an important focus of environmental education since it was first defined by Stapp et. al. (1969) thirty-seven years ago. Research indicated that an individual’s environmental competence can be increased if provided the opportunity to effectively carry out actions that improve environmental conditions within one’s local community. This connection to community can foster a sense of stewardship.

Research suggested that children are innately attracted to natural areas and that, if given the opportunity to intimately explore a place freely over an extended period of time, they will develop an emotional attachment that will foster the foundation of environmental awareness on which everything else builds. As more parents become afraid of letting their children go out and explore their neighborhood and community, more and more responsibility falls on the school to allow young children to play regularly away from adults in as diverse a natural setting as possible and to be given gradually increasing opportunity to care for that natural place.

The literature suggested that children in elementary school at all grade levels be given the chance to actively participate in the research, planning, practice, and evaluation of environmental management issues. It was found that children need to believe that their actions can be effective in order to be motivated to care and practice sustainability. Research found as well that an unbiased understanding of the environmental issues can only come by gaining the appropriate analysis skills.

The adult role model is crucial in the process. The role of the teacher is to encourage a child’s awareness and appreciation for the natural world; to show a child how to really look and see. This entails helping children bridge their intimate relationships with their immediate outdoor environment to more social, economic, and cultural connections with their neighborhood, community, and eventually the globe. This concurs with Vygotsky’s (1978) understanding of the important role the adult plays in enhancing a child’s zone of proximal development. It is noted that research on how individuals contextualize their outdoor experiences is limited. Further work in this field is needed.

Research indicated that place-based education facilitates children’s and adults’ exploration of the historic cultural, socio-economic, and biophysical
attributes of their community and helps them become aware of the dynamic interdependence of these characteristics to gain a sense of place. A sense of place, it was found, provides the awareness and motivation needed for adults and children to work together to solve environmental issues specific to the community. This provides the foundation on which further understanding of more complex global environmental issues can be constructed.

Orr (1994) declared that “all education is environmental education. By what is included or excluded, students are taught that they are part of or apart from the natural world” (p. 12). Bigelow (1996) questioned what we are telling our children when we confine learning solely to indoor classrooms. He wondered if we were giving our children the impression that only “serious work happens indoors, outdoors is just for fun, to play in but not for knowledge of self, culture, or of the earth?” (Bigelow, 1996, p. 17). Hart (1997), Sobel (2004), Orr (1994), and Bigelow (1996) all challenged educators to seek out an ecologically-responsive curriculum.

Recommendations for Practice

A life long learner practicing sustainable stewardship is aware, sensitive, and knowledgeable about his or her surrounding biophysical and built environment. Such a citizen understands how social, economic, political, and cultural values, behaviors, and subsequent actions intertwine with ecological processes through time to tell the story of the land. Furthermore, this learner has the skills to critically analyze, evaluate, and interpret the implications of these actions and behavior within the broader community, regional, and global contexts. Most importantly, however, this person has the motivation and the collaborative skills to practice this understanding in an environmentally responsible way. This is no small achievement but, based on the global recognition of the importance of sustainable development (WCED, 1987) and the commitment by government agencies and organizations all over the world to adopt environmental education for sustainable societies (UNCED, 1992), teachers today have the responsibility to embrace this as a goal for each student within their community of learners.

Although teachers might find this additional responsibility to be insurmountable, research findings explain how place-based education fosters not only sustainable stewardship but also life long learning and increased learning competence, hence facilitating academic achievement for an increasing number of students (Hart, 1997; Lieberman & Hoody, 1998; Orr, 1994; Sobel, 2004). This pedagogy process that facilitates student connection to community could provide answers to questions and challenging problems school districts face in education today when trying to determine how to help all students achieve state academic standards in an increasingly culturally-diverse student population.

Place-based education emphasizes experiential, authentic, collaborative, holistic learning experiences using the local community through interdisciplinary subjects (Lieberman & Hoody, 1998; Sobel, 2004). This process provides the opportunity for teachers to facilitate student-centered problem-based learning, where different cultural perspectives and understandings can be respectfully and critically analyzed and synthesized through reflective inquiry. Ideas, opinions, and understandings can be explored and shared through different mediums of expression allowing children with different learning styles and cultural backgrounds to explore and communicate in alternate ways. Given that students can relate their learning experiences to their cultural identity, they will be more apt to gain in learning competence. As a result, they will feel more motivated to collaborate in their learning effectively and increase academic achievement accordingly (Freire, 2006). Research finds that place-based education could benefit school districts, but what does that entail? How might an elementary school implement this teaching pedagogy in a developmentally appropriate way?

Research suggested that, if we foster an attachment to place, teachers can nurture a child’s sense of wonder and develop the sensitivity Hungerford and Volk (1990) concluded is necessary to engage a child’s motivation to care for the environment (Chawla, 2003; Hart, 1997; Sobel, 1998). Hart (1997) believed this requires that schools provide children ages six through eleven free access to a natural area limited in size over an extended period of time. With the help of community experts and parent volunteers, students in each grade level can collaboratively work with adults to plan, implement, and maintain such an ecologically diverse setting within the school grounds. Although small enough for outdoor playground teachers to monitor, this natural area must be large enough to allow children to freely enjoy and leisurely explore “away from adults” during outdoor time in order to intimately discover the wonder of nature’s complexity in a particular place (Chawla, 2003; Hart, 1997). Most children, especially in our large urban cities, have lost access to traditional outdoor play environments, including streets as well as undeveloped spaces. More and more responsibility, therefore, falls on the school to allow young children to play regularly away from adults, in as diverse a natural setting as possible. Furthermore children need
to be given the opportunity to care for that natural place. Positive experiences that fostered children's competence and awareness of the natural world through school ground naturalization programs in both rural and urban areas are well documented. (Coffee, 1989; Education Development Center. 2000; Harvey, 1990; Lucas, 1995; Malone & Tranter, 2003; Moore, 1997; Rivkin 1997).

Contact with nature alone is not sufficient for a child to develop the understanding of and caring relationship with the natural world. The role of adults is also crucial. Children learn the value of nature through culture and a role model (Chawla, 2003; Hart, 1997). Teachers, volunteering parents, and community members enjoying the natural area with children can help students learn to observe, appreciate, and respect the intricate wonders of nature. The adult role model validates that the natural world is something worth noticing, appreciating, and learning more about. When organized by students, teachers, parents and community members, a collaborative program can model the value and appreciation for the outdoor environment and facilitate skills for taking action at the same time. Motivating students to want to care for the environment is not enough. Children must learn how to act. They need to believe that they can take effective actions and that their actions can really make a difference (Chawla, 2003; Hart, 1997; Sobel 2004).

As mentioned earlier, the students should be involved right from the beginning in the planning, implementing, and the maintaining of the school environmental projects; for, in order to evaluate environmental issues critically, children need to learn collaborative problem solving research skills. Furthermore, children need to understand how their behavior, decisions, and actions are intricately connected to ecological processes in the natural world. Hart (1997) proposed a model for ages four through twelve that suggested an increasing scope and scale of action research projects, from domestic environmental management, through local school or club and community-based projects, to strategic ecological research on ecosystems at community or regional scale, such as identifying pollutants in a water basin (Hart, 1997, p. 90). Through this process he found that children become aware of the interconnectedness of socio-economic, political, cultural, and ecological processes. They also begin to critically evaluate resource utilization, distribution, and management, first within their own immediate environment and eventually (when developmentally appropriate) they then bridge to community, regional, and global sustainability issues. By documenting and reflecting on findings with professional community planners, for example, Hart found that children can learn how to collaboratively evaluate different perspectives considered in diagnosing a problem. If taught mapping skills, the spatial interactions of the socio-economic, political, cultural, and ecological processes are more easily ascertained (Hart, 1997). Mapping can be a powerful tool to help children connect with their community (Hart, 1997; Sobel 1998).

Sobel (1998) proposed mapmaking with children as a method for teachers to determine a child’s scope, perspective and knowledge of his or her surrounding environment. He also explained how teachers could develop and utilize the tool to help children collaboratively explore, interpret, analyze, and communicate different historic, social, cultural, and ecological community projects. As children’s geographic scope and perspective evolve, their ability to effectively understand broader community and regional resource issues expands.

Through place-based education, children and adults together can explore the historic cultural, socioeconomic, and biophysical attributes of their community, become aware of the dynamic interdependence of these characteristics and gain a sense of place. Research has found that a sense of place provides the awareness and motivation needed for adults and children to work together to solve environmental issues specific to the community (Hart, 1999; Orr, 1994; Sobel, 2004). Maintaining a connection to community within elementary education can foster such a sense of place.

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Complexities in the Selection, Interpretation, and Teaching of Multicultural Literature

by Caitlin I. Robertson

This paper examines the extant research into some of the complexities that abound in the teaching of multicultural literature to children, with special examination of three things: the context in which the literature is being taught, how this context influences the interpretations of texts that are read, and the consequent selection of these texts. Although literature on this topic is emerging, there is insufficient research regarding the social context of the literature classroom and how this influences the teaching, interpretation and selecting of multicultural literature. This paper examines some of the complexities regarding the contexts of multicultural literature classrooms, as well as emphasizes the necessity that more attention be given to this realm of multicultural literature.

Introduction

As classrooms across the United States become increasingly diverse, a focus on multicultural education is becoming a greater priority. Many educators think of multicultural education solely as content that is designed to teach about ethnic, racial, and cultural groups. However, James Banks (2001), noted professor of multicultural education, says this kind of exclusive conceptualization of the term is dangerous. Teachers who do not immediately see the connection between the topics they are teaching and the cultural issues ingrained within these subjects will be likely to develop a belief that multicultural education is separate, and therefore not relevant to the content they are teaching. This can cause teachers to develop a resistance to multicultural education based on the belief of its irrelevance (Banks, 2001, p. 21).

As the necessity for multicultural education becomes more apparent, and its domain less exclusive, educators must create environments in which their students may encounter people who are different racially, ethnically, and culturally, as well as give their students opportunities to step outside their cultural frames of reference. Multicultural literature has the potential to allow for this shift in one’s perspective and to connect multicultural education to seemingly disparate subjects (Banks, 2001).

Quality multicultural literature can develop in students’ empathy and foster greater respect and appreciation for each other, as well as the motivation and cultural knowledge to challenge the status quo. Therefore it is imperative that close examination be given to the complexities of introducing multicultural literature to children’s lives (Siu-Runyan, 1996).

This paper will review literature touching on some of the complexities that abound in teaching multicultural literature to children, with special examination of three things: the context in which the literature is being taught, how this context influences the interpretations of texts that are read, and the consequent selection of these texts. In examining context, special regard will be given to how the racial, ethnic, and cultural backgrounds of both the teachers presenting the literature and the students reading the literature affect the learning that occurs and the interpretations that are made.

Although much has been written on various topics pertaining to multicultural literature as more schools nationwide adopt literature-based reading programs (Lewis, 2000), research which addresses the context in which multicultural literature is taught is clearly lacking. Although literature on this topic is emerging, there is insufficient research regarding the social context of the literature classroom and how this influences the interpretation, teaching and selecting of multicultural literature. In this paper I attempt to examine the complexities regarding the contexts of multicultural literature classrooms, as well as make it known that it is imperative that more attention be given to this realm of multicultural literature.

Because of the lack of research addressing the context in which multicultural literature is taught, one issue this paper addresses are the various teaching approaches that affect the interpretive climate of multicultural literature classrooms. In order to acquaint the reader with these various approaches, a brief summary is given here. These approaches will be discussed more extensively later on.

The New Critical Approach focuses strictly on textual analysis and hinders students’ opportunities to discuss critical issues related to the texts (Enciso, 1997). In contrast, the Reader-Response Approach emphasizes the transaction that occurs between each individual reader and a text (Rosenblatt, 1958). In the Reader-Response Approach, meaning is not situated within the text but is made as each reader interprets the text differently, based on many factors that will be further discussed.
Both the Community-Based Approach and Cultural-Response Approach stress that more focus be given to the contextual communities that exist within the texts, as well as within the classroom in which these texts are being interpreted (Beach, 1997; Meixner, 2006). Similarly, the Cultural-Based Approach values both the academic and personal knowledge of students when discussing multicultural literature (Gay, 2000; Smith & Singer, 2006). That is, the contextual communities from which the students come are considered to be important in class discussions.

Studying these approaches helps to uncover some of the intricate forces that help shape the context of the multicultural literature classroom.

Among the many complex issues surrounding the incorporation of multicultural literature into the classroom is the central question of how one defines the term “multicultural literature.” In Selecting Literature for a Multicultural Curriculum, Bishop offers a description of what the term multicultural literature includes in her work. In this paper, when the term multicultural literature is used it will, like Bishop’s description, include all texts that “reflect the racial, ethnic, and social diversity that is characteristic of our pluralistic society and of the world” (Bishop, 1997, p. 3).

**Literature Review**

Many researchers argue that students who have historically been referred to as minority students become more actively engaged in the reading of multicultural literature and are eager participants in text discussions if the teacher is able to move beyond the New Critical Approach to teaching multicultural literature (Bishop, 1997; Dong, 2005; Enciso, 1997; Gay, 2000; Lewis, 2000). In contrast to Reader-Response and Cultural-Response approaches to teaching multicultural literature, which will be explored further on in this paper, the New Critical Approach focuses strictly on textual analysis and prohibits students from discussing critical issues related to the texts (Enciso, 1997).

Venturing from the New Critical Approach, Louise Rosenblatt, well-known for her theories on Reader-Response, emphasizes the role of the reader in creating his or her own interpretation and experience of a text. Rosenblatt (1968) argues that a text takes on true meaning only when each individual has interpreted the literature and transformed the text into meaning.

According to Rosenblatt’s (1968) view of Reader-Response, it is the teacher’s responsibility to allow his or her students to reevaluate their own cultural assumptions and experiences. The teacher is only able to guide this process if he or she understands some of the possible forces behind the students’ responses and can predict some of the major needs and concerns that his or her students might have about a work of literature (Rosenblatt, 1968). However, Rosenblatt’s stance on Reader-Response often gets watered down when implemented in classrooms, and this reevaluation of cultural assumptions does not always occur (Lewis, 2000).

In addition, Rosenblatt’s concept of Reader-Response views “the individual reader’s transaction with the text as primary over the local context of classroom or socio-cultural contexts beyond the classroom” (Lewis, 2000, p. 257). Literature classroom researcher Lewis (2000) argues that greater importance must be given to the social and political dimensions that influence Reader-Response within particular contexts (p. 258).

According to Lewis (2000), literary interpretation must be considered a social act as we cannot understand the transaction between reader and text without “examining the many social conditions that shape the stances readers take up as they interpret and respond to literature” (p. 258).

Students learn ways of reading within the various contexts of communities in which they participate. Individuals are influenced by their previous learning experiences as well as by their cultural backgrounds, thus affecting the interpretive climate of a particular classroom (Rogers, 1997). Classrooms therefore become complex environments in which various identities, backgrounds, and experiences collide when multicultural literary texts are introduced and discussed (Rogers, 1997).

Another criticism of the Reader-Response approach is that the diversity of interpretations of texts within classrooms can be homogenized and certain textual meanings are deemed as the correct interpretations due to the dominant social ideologies of the classroom or institution (Rogers, 1997).

Researchers have exposed yet another potential drawback with the Reader-Response approach when it is used with readers who are unfamiliar with the particular culture or text. In these circumstances, the Reader-Response approach might not necessarily challenge the worldviews of the readers. The desire to empathize and identify with the text hinders the readers’ abilities to interpret literature from other cultures (Dong, 2005; Jordan & Purves, 1993).

In addition, a focus on the personal connection can make readers focus on the individual character and on similarities rather than on the context in which that character operates, de-emphasizing the cultural differences that exist (Ostrowski, 1997).
Meixner (2006) describes how often teachers choose “multicultural” texts on a racially specific basis, and states that this is a mistake, for even though it is an attempt to include voices from cultures that have been traditionally marginalized, this actually helps to exclude the voices of the people, cultures, and communities that educators are trying to include by deeming these texts as “discrete, distinct, and insular” (p. 16).

Meixner (2006) states that in order to provide students with opportunities to learn about other cultures, educators must ensure that their students recognize how these cultures are interrelated and how they influence and shape one another. This focus on the interrelatedness of communities allows for a different interpretive climate within the context of the multicultural literature classroom (Meixner, 2006).

Meixner (2006) suggests that the Community-Based Approach be used when teaching literature. Following the idea that more focus be given to the contexts in which literature is taught, Meixner’s (2006) approach concentrates on the contextual communities to which a character belongs, and to those communities with which he or she identifies, rather than focusing on comprehension and the chronological ordering of events of a text (Lee, 1995).

Meixner’s (2006) Community-Based Approach helps students to question and examine the representations of race, class, and gender within the literature and students can then use these examinations to help develop their understanding of their own identities, as well as their understanding of the texts that they read.

In addition, the Community-Based Approach encourages the notion that racial identities, or any identities for that matter, do not have true meaning outside the context in which that meaning is made. It also challenges students to start seeing and to begin talking about privilege and the inequity of power. Students will reflect on their own communities and reasoning for identifying with them. They will also be able to make meaning of the various characters’ experiences within the texts they read by recognizing and analyzing the community context in which these experiences take place (Meixner, 2006).

In a similar vein, Beach (1997) emphasizes a Cultural-Response Approach because it encourages students to question their own assumptions about other cultures by increasing their cross-cultural understanding. By encouraging students to explore the cultural context of the text as Meixner (2006), Lewis (2000), Beach (1997), and other researchers encourage, the students are able to explore racial and cultural differences more thoroughly (Beach, 1997; Dong, 2005; Lewis, 2000; Meixner, 2006).

However, educational researcher Dong (2005) explains that in order for these racial and cultural explorations to occur, multicultural literature teachers must open the dialogue on racial and cultural differences before introducing texts to their students. Dong asserts that it is inevitable that a student’s interpretation of a text will be influenced by his or her cultural background and ideologies. Educators must help students reflect on their backgrounds and cultural assumptions. Educators must help them to recognize each other and their own selves as cultural beings so that they can learn about the culture under study (Dong, 2005).

Geneva Gay (2000) also speaks to the importance of the socio-cultural context in which teaching and learning are occurring when she states:

Teaching is a contextual and situational process. As such, it is most effective when ecological factors, such as prior experiences, community settings, cultural backgrounds, and ethnic identities of teachers and students, are included in its implementation. (p. 21)

Teachers cannot assume that by merely introducing multicultural texts to their students that they will gain an appreciation and tolerance for cultural and ethnic diversity (Adams, 1995). Without critically examining the complex dynamics of race, power, and structural inequalities that are ingrained within the community-context of the classroom, as well as within the texts that are discussed, students will be unable to experience any attitudinal changes. They may possibly become detached and distanced from issues of racism and inequity within the texts as well as within their own communities (Adams, 1995).

This kind of Cultural-Based Approach to teaching multicultural literature that Gay (2000) and other researchers, such as Smith and Singer (2006), support values both academic and personal knowledge. Students should be encouraged to recognize the limitations of their cultural stances while studying multicultural literature. If reading and discussion can take them beyond their personal knowledge, Smith and Singer (2006) tell us that this can lead to critical reflection that is necessary for the ultimate goal of multicultural literature and a multicultural education: to create a foundation of knowledge for social change.

The teacher has a very powerful role within the multicultural literature classroom. Students are influenced by various interactions within the classroom that help to form the classroom context (Lewis, 1998). In addition, the broader context of community beyond the classroom also has a force in shaping the way classroom dynamics and politics are
played out and how these factors influence students’ interpretations of texts (Lewis, 1998; McGinnis, 2006).

Vali (1996) states that in order for teachers to help their students challenge their own cultural assumptions, teachers must also examine their own cultural beliefs and how they may affect both their interpretations of the literature being studied, and how these interpretations may affect their students’ interpretations. This is particularly important as the teaching force becomes increasingly White, and the student population in the United States continues to become more diverse. It should be mandatory that students studying to become teachers learn how to examine their own racial, ethnic, and cultural backgrounds (Vali, 1996).

When this racial, ethnic, and cultural examination does not occur, many problems develop. For example, Alice McIntyre (1997) discusses the lack of self-reflection on being White in U.S. society. The author claims that for White educators especially, “this invisibility to one’s own racial being has implications in one’s teaching practice—which includes such things as the choice of curriculum materials, student expectations, grading procedures, and assessment techniques—just to name a few” (McIntyre, 1997, pp. 14-15). White teachers need to be especially aware of this position of White privilege from which they are operating, and how this advantage influences the climate of their classrooms and their interpretations of the literature they are teaching (McIntyre, 1997).

In Already Reading Texts and Contexts: Multicultural Literature in a Predominantly White Society, Jean Ketter and Cynthia Lewis (2001) describe their goal of better understanding the complexities that influence how teachers select multicultural literature and how they use this literature within their classrooms. The authors are White teacher educators of primarily White pre-service teachers. They recognize the importance of their pre-service students’ perceptions of how their own cultural and racial backgrounds affect their understandings of multicultural literature. Ketter and Lewis (2001) also want their pre-service students to question how these perceptions will affect the choices they will make about what literature is appropriate to teach.

Through their research, Ketter and Lewis (2001) conclude that each person brings a personal interpretation of the selected texts that was formed by both the “social politics” of the surrounding community context as well as individual beliefs about the rationales for reading and teaching multicultural literature.

Ketter and Lewis (2001) describe an event that seems to have been significant in the formation of their preservice teachers’ views on multicultural literature and on how to use it in their classrooms. An African American mother was concerned that the Newberry Award-winning 1970 novel Sounder, written by William Armstrong, was the only literature about African American characters being taught in her son’s classroom all year. The parent was concerned that because the text depicts the black characters as being victims, as well as the fact that the teacher had not appropriately put the novel into a historical context, her son, the only Black student in the class, was made to feel singled out and uncomfortable (Ketter & Lewis, 2001).

This event was important in forming the pre-service teachers’ perspectives on the purposes of teaching multicultural literature as well as the perspectives of other members of the educational community, and so Ketter and Lewis (2001) interviewed teachers and pre-service teachers about their purposes in teaching multicultural literature. The authors describe the main categories that the teachers’ and pre-service teachers’ purposes fell into as “teaching neutral texts” and “teaching universal themes” (Ketter & Lewis, 2001).

From these interviews, it was found that the teachers and pre-service teachers in this predominantly White community generally saw multicultural literature as being intimidating, as it had the power to be perceived as being controversial. Rather than talking about the oppression and inequality of social structures that multicultural literature can expose, the teachers and pre-service teachers that Ketter and Lewis (2001) interviewed seem to think of this kind of discussion as inappropriate or risky for school study. These teachers also tended to believe that multicultural literature is valuable because of its universality, that is, it is valuable because students who are of the dominant White race can find some likeness to themselves within the literature (Ketter & Lewis, 2001).

Ketter and Lewis (2001) believe the idea that multicultural literature has value because of its universality is good in many ways as it helps the students to connect to literature outside their own cultures. However, they believe it is dangerous as well, because the view focuses only on the importance of similarities rather than teaching students to recognize and value difference (Ketter & Lewis, 2001).

Rather than evaluating multicultural texts in terms of their neutrality and universal themes, Ketter and Lewis (2001) argue that it is necessary to read from the perspective of Cultural Criticism “in order
to examine systemic oppression and normative privilege” (p. 179). Rather than trying to universalize, historicizing difference is necessary in order “to promote an awareness of systemic inequalities that show experiences to be anything but universal” (Ketter & Lewis, 2001, p. 179).

The same African American mother who was upset by the lack of historical context given in the teaching of *Sounnder*, expressed concern with the teaching of the novel *Scorpions* by Walter Dean Myers to the same predominantly White community. The mother was concerned that in this community context, the teaching of this novel that portrays a young African American as a member of a gang would be reinforcing stereotypes held within this relatively isolated White community. This parent did not see the focus on exposing structural inequality in the same way that Ketter and Lewis (2001) did, two White academics promoting cultural criticism, but rather saw the important role of context when choosing the multicultural literature that is to be taught in the classroom, as well as how it is taught.

Ketter and Lewis (2001) argue that the teachers need to be taught to “read literature in culturally critical ways that challenge White assumptions about texts” (p. 182). When this happens, “the social and political dimensions of selecting, interpreting, and teaching multicultural literature” become extremely important (Ketter & Lewis, 2001, p. 182).

Ketter and Lewis (2001) determine that the teacher educators, teachers, and parents are “already reading texts and contexts” before the teaching of literature is even approached within the classroom. That is, they are bringing their own racial, ethnic, and cultural backgrounds into their own complex interpretations and understandings of the texts. Ketter and Lewis (2001) say this clearly emphasizes the necessity for educators to examine their own cultural lenses with which they interpret the text, and teach multicultural literature.

Ketter and Lewis (2001) point out that the purpose for teaching multicultural literature may “extend beyond the social politics of a particular community context to reflect current and historical debates within educational communities and among educational philosophers” (p. 182). The complexity that surrounds the selection and teaching of multicultural literature “can only be understood within the context of each community that responds in particular ways to larger structural conditions” (Ketter & Lewis, 2001, p. 182). Ketter and Lewis (2001) are here expressing the importance of both cultural criticism and the community context when approaching the complexities in reading and teaching multicultural literature.

In focusing on the multicultural literature classroom context, educators must try to prevent the romanticization of the characters and their experiences. By encouraging students to connect and equate their own experiences to characters from other cultures they risk doing what Rosenberg discourages in *Underground Discourses: Exploring Whiteness in Teacher Education* (Ketter & Buter, 2004, p. 49). Rosenberg warns that by fostering only a student’s ability to see the similarities between the characters’ lives and the student’s own life, the student can ignore the ways that “racist domination impacts the lives of marginalized groups” (Ketter & Buter, 2004, p. 49).

Rosenberg (2004) writes about Eduardo Bonilla-Silva’s racial ideology that is prevalent in the United States. Unlike Jim Crow racism, this ideology does not engage people in direct discourse about race but nonetheless perpetuates racial privilege. This ideology promotes the idea that racism is no longer a systemic problem within our society, but rather a problem of racist individuals. According to Rosenberg, Bonnilla-Silva states that this color blindness “is as effective as slavery and Jim Crow in maintaining the racial status quo” (Rosenberg, 2004, p. 257). Rosenberg (2004) goes on to state that:

Those who favor a color-blind society fail to see that race, especially skin color, has consequences for a person’s status and well-being. That blindness to skin color and race remains a “privilege” available exclusively to White people highlights the reality that color blindness only serves to perpetuate and institutionalize the very divisions between people that it seeks to overcome. (p. 257)

Thus, the literature suggests that if educators teach multicultural literature in their classrooms with the sense of color blindness to which Ketter and Lewis (2001) allude in their White pre-service teachers, that mindset will require that they stop addressing the issues of race and skin color, thus making impossible the teaching of multicultural literature (McIntyre, 1997; Rosenberg, 2004).

Gloria Ladson-Billings (1992) is an educational researcher who argues that rather than operating with a sense of color blindness, teachers need to become more culturally responsive to their students who are considered more ethnically and racially diverse. According to Rosenberg, while Ladson-Billings recognizes that even though White teachers have the tendency to claim that their color blindness stems out of their desire to be fair, Ladson-Billings counters that, “the notion of equity as sameness only makes
sense when all students are exactly the same” (Ladson-Billings, 1992; Rosenberg, 2004, p. 257).

As mentioned earlier in this paper, many researchers have found that a more refined instructional lens is necessary in order to meet the needs of diverse students (Gay, 2000; Hefflin, 2002; Ladson-Billings, 1992). In trying to tailor literature instruction to fit the textual, social, cultural, and personal lives of students, educational researcher Bena Hefflin (2002) concludes that it is largely about seeing the norms and practices of students’ lives and accommodating materials and methods to fit them. This necessitates that more focus be given to the selection of multicultural literature that is made available to students.

Rosenblatt highlights another problem that multicultural literature teachers face in regarding the context they teach in: the detrimental effects on the reading experiences of students that are not considered part of the mainstream and are taught literature that is irrelevant to their lives (Oliver, 1994). In a similar vein, Lehr and Thompson (2000) claim that Naidoo, who conducted research on prejudice in British schools, found that students in England felt that the stories she taught them about racism and apartheid were too remote from their lives to connect with them. Conversely, students from South Africa felt a deep identification with the characters, leading Naidoo to conclude that reading books about characters that reflect students’ personal histories and experiences help children to develop empathy for others and to change their perceptions based on this identification (Lehr & Thompson, 2000).

However, a great gap exists between what we espouse students need and what is actually given to them within the multicultural literature classroom. Naidoo’s theory supports an idea that seems relatively simplistic—that is, that readers respond to literature that relates to their own lives (Lehr & Thompson, 2000). However, the anthologies most commonly used in classrooms across the United States throughout history have contained and continue to contain mainly selections from a White, male-dominated literary canon. This leaves a great number of students without access to literature that reflects people or cultures like themselves (Lehr & Thompson, 2000).

Oliver (1994) posits another factor that impacts the context in which multicultural literature is taught and relates to the problem of the White, male-dominated literary canon—the changing population of the United States. As the demographics in the United States continue to rapidly change, literature teachers must expand the traditionally Euro-centric, White-male canon to include voices that expand students’ knowledge and offer histories and experiences of peoples and cultures that have been historically marginalized (Oliver, 1994).

Rudine Sims Bishop (1997), a well-known African American professor of children’s literature, states that literature acts as both a mirror and a window for the reader. As children see themselves reflected in the literature they read, which White, mainstream children most often do, the literature is acting as a mirror. As children read about people who are different from them, the literature serves as a window. Too often the people who are generally marginalized in the United States only experience literature as a window (Bishop, 1997; Mitchell, 2003). It is important that educators present literature to their students that allows children to encounter characters who look like themselves as well as those who do not look like them (Bishop, 1997; Mitchell, 2003).

The interpretation of multicultural literature is influenced by many factors, including those that are embedded within the socio-cultural context of the classroom. In order to understand the interaction between the reader and the text, it is necessary to include an examination of the many factors within the social context of the multicultural literature classroom that influence how students engage with multicultural literature (Beach, 1997; Bishop, 1997; Dong, 2005; Enciso, 1997; Ketter & Lewis, 2001; Meixner, 2006; Oliver, 1994; Rogers, 1997).

Teachers and teacher educators must reflect on their own backgrounds and experiences as well as the cultures of the community, school, and classroom in which they work. They must recognize the influence that all of these contexts have on their interpretations and teaching of multicultural literature (Fang, Fu, & Lamme, 1999).

Researchers suggest that teachers need to redefine what it means to “read” in a society that is increasingly pluralistic and complex (Bishop, 1997; Dong, 2005; Fang et al., 1999; Ketter & Lewis, 2001; Meixner, 2006; Rogers, 1997). Rather than simply teaching children to comprehend multicultural literature, it is the educator’s duty to teach children to learn to understand these texts and to be able to form some sense of relation between the text and themselves and with other cultural experiences (Bishop, 1997; Fang et al., 1999).

Educational researcher Rogers (1997) states clearly that educators must concern themselves not only with teaching children how to interpret multicultural literature, but also with questioning the factors that influence reading and interpretation within the contexts that they reflect, teach, and learn in.
While there is a lack of research on issues regarding the context in which multicultural literature is taught, the research that does explore context suggests that the interpretive climates of multicultural literature classrooms are substantially influenced by the students’ previous learning experiences and cultural backgrounds. The teacher’s cultural background and experiences also have very powerful impacts on the classroom context, and the literary interpretations that occur. The community contexts beyond the classroom are a great influence on the multicultural literature classroom as well (Bishop, 1997; Dong, 2005; Fang et al., 1999; Ketter & Lewis, 2001; Meixner, 2006).

Conclusions

Multicultural education has historically been treated as a separate entity rather than an element that should be embedded within all subjects. James Banks (2001) argues that this approach is harmful and stifling to classroom learning and can cause teachers to develop a resistance to multicultural education.

It is clear that multicultural education is gaining importance as educators look for ways to create environments in which their students will be able to interact with people who are different racially, ethnically, and culturally. Students need to be given experiences in which they step outside of their cultural frames of reference in order for this interaction to occur. Multicultural literature has the power to allow this “stepping outside” of one’s cultural mindset to occur, and it can connect multicultural education to subjects whose connection may not initially be clear (Banks, 2001).

Because multicultural literature has the power to influence children’s knowledge, respect, and appreciation for each other, as well as to develop cultural knowledge children need in order to become catalysts for social change, it is imperative that close examination be given to introducing multicultural literature to children’s lives (Siu-Runyan, 1996).

There are many complexities that abound in the teaching of multicultural literature. This paper has focused on three of the most critical: the context in which the literature is being taught, how this context influences the interpretations of texts that are read, and the consequent selection of these texts.

Although much has been written on various topics surrounding the teaching of multicultural literature, there is a substantial gap in the research regarding the context in which multicultural literature is taught. Although studies in this area are emerging, it is clearly a topic that requires further study and research.

The New Critical Approach focuses solely on textual analysis and prohibits students from discussing critical issues related to the texts (Enciso, 1997). In contrast, Louise Rosenblatt’s theories of Reader-Response emphasize the role of the reader in creating his or her own interpretation and experience of a text. Rosenblatt (1968) argues that a text only takes on true meaning when each individual has interpreted the literature and transformed the text into meaning.

However, researchers have exposed drawbacks to the Reader Response approach, such as that it fails to challenge the worldviews of readers who are unfamiliar with the particular culture or text and encourages students to focus on similarities while de-emphasizing the cultural differences that exist (Dong, 2005; Jordan & Purves, 1993; Ostrowski, 1997)

Lewis (2000) suggests that literary interpretation must be considered a social act as we cannot understand the transaction between reader and text without taking into account the social situations that shape the perspectives of the readers as they interpret texts. Lewis (2000) argues that greater importance must be given to the social and political dimensions that influence Reader-Response within particular context. Classrooms are complex environments in which various identities, backgrounds, and experiences intersect when multicultural texts are introduced and discussed (Rogers, 1997).

Meixner (2006) suggests that the Community-Based Approach be used when teaching literature. Similar to Lewis’ approach which suggests that more focus be given to the contexts in which literature is taught, Meixner (2006) views the contextual communities within a text as primary over the chronological ordering of events (Lee, 1995). Similarly, Beach (1997) encourages the Cultural-Response Approach because it encourages students to explore the cultural context of a text and to begin questioning their own ideas of other cultures by increasing their cross-cultural understanding.

When teaching multicultural literature, teachers must open the dialogue on racial and cultural differences before introducing texts to their students (Dong, 2005). Teachers cannot assume that by merely introducing multicultural texts to their students that their students will gain an appreciation and respect for cultures and ethnicities different than their own (Adams, 1995).

Researchers Ketter and Lewis (2001) make a case that focusing on the universal themes within multicultural literature is dangerous, and that an approach of Cultural Criticism is necessary so that students may learn to recognize, examine, and change oppressive and systemic inequalities.
The teacher has a very influential role within the multicultural literature classroom (Lewis, 1998). The broader context of community beyond the classroom also has a large impact on classroom dynamics and politics (Lewis, 1998; McGinnis, 2006). For teachers to help their students, they must examine their own cultural beliefs and how these beliefs may influence their interpretations of the texts being studied (Valli, 1996).

White teachers need to be especially aware of the position of White privilege from which they are teaching and how this position influences their interpretations and discussions of literature (Ketter & Lewis, 2001; Ladson-Billings, 1992; McIntyre, 1997; Rosenberg, 2004). Rather than operating with a sense of color blindness, teachers need to become more culturally responsive to their students, and learn to recognize and talk about race and skin color (Rosenberg, 2004). Teachers need to be taught to examine the cultural lenses with which they interpret and teach multicultural literature (Ketter & Lewis, 2001).

Several researchers have found that a more refined instructional lens is imperative if we are to meet the needs of diverse students (Gay, 2000; Hefflin, 2002; Ladson-Billings, 1992). Researcher Bena Hefflin (2002) concludes that we must be able to recognize the norms and practices of students’ lives and accommodate materials and methods to fit them. This indicates that the literature that is taught in classrooms must be chosen carefully and with purpose (Hefflin, 2002; Ketter & Lewis, 2001).

As demographics in the United States continue to rapidly change, literature teachers must expand the traditionally Eurocentric, White-male canon to include voices that expand our knowledge and offer histories and experiences of peoples and cultures that have been historically marginalized (Oliver, 1994).

Researchers suggest that teachers need to redefine what it means to “read” in a society that is increasingly pluralistic and complex (Bishop, 1997; Dong, 2005; Fang et al., 1999; Ketter & Lewis, 2001; Meixner, 2006; Rogers, 1997). Educators must concern themselves not only with teaching children how to interpret multicultural literature, but also with questioning the factors that influence reading and interpretation within the contexts that they reflect, teach, and learn in (Rogers, 1997).

**Recommendations for Practice**

As classrooms across the United States become increasingly diverse, educators must interweave multicultural education into their curriculums, rather than allow it to be seen as a disparate subject (Banks, 2001). Multicultural literature has the power to inform one’s cultural perspective, and can connect multicultural education to various subjects. This necessitates that educators realize that quality multicultural literature can help students to develop empathy, expand their cultural knowledge, and build an awareness and respect for cultures other than their own (Banks, 2001).

This also requires that a close examination be given to the complexities of introducing multicultural literature to children (Siu-Runyan, 1996). Although much has been written on various topics pertaining to multicultural literature, research that addresses the context in which multicultural literature is taught is clearly lacking. It is noted that there is insufficient research regarding the social context of the literature classroom and how this influences the selection, teaching, and interpretation of multicultural literature.

This lack of research regarding the contexts of multicultural literature classrooms makes it imperative that more attention be given to this complex realm of multicultural literature. Because of the insufficient research on the context in which multicultural literature is taught, this paper addressed various teaching approaches that affect the interpretive climate of multicultural literature classrooms. Studying these approaches helps to uncover some of the intricate forces that help to shape the context of the multicultural literature classroom.

The New Critical Approach focuses strictly on textual analysis and hinders students’ opportunities to discuss critical issues related to the texts (Enciso, 1997). Many researchers argue that students who have historically been referred to as minority students become more actively engaged in the reading of multicultural literature and are eager participants in text discussions if the teacher is able to move beyond the New Critical Approach to teaching multicultural literature (Bishop, 1997; Dong, 2005; Enciso, 1997; Gay, 2000; Lewis, 2000). In contrast to the New Critical Approach, the Reader-Response Approach emphasizes the transaction that occurs between each individual reader and a text (Rosenblatt, 1968). In the Reader-Response Approach, meaning is not situated within the text but is made as each reader interprets the text differently. According to Rosenblatt’s view of Reader-Response, it is the teacher’s responsibility to allow his or her students to revalue their own cultural assumptions and experiences (Rosenblatt, 1968).

While Rosenblatt’s concept of Reader-Response views “the individual reader’s transaction with the text as primary over the local context of the classroom or socio-cultural contexts beyond the classroom” (Lewis, 2000, p. 257), literature classroom researcher Lewis argues that greater
importance must be given by the teacher and students to the social and political dimensions that influence reader response within particular contexts (Lewis, 2000).

Both the Community-Based Approach and Cultural-Response Approach stress the importance of the contextual communities that exist within literary texts, as well as within the classroom in which these texts are being interpreted (Beach, 1997; Meixner, 2006). Similarly, the Cultural-Based Approach values both the academic and personal knowledge of students when discussing multicultural literature (Gay, 2000; Smith & Singer, 2006). This means that the contextual communities from which the students come are given importance in classroom discussions.

However, before these racial and cultural explorations can occur through these various approaches to teaching multicultural literature, educational researcher Dong (2005) explains that teachers must open the dialogue on racial and cultural differences before introducing texts to their students. Dong (2005) asserts that educators must reflect on their own backgrounds and cultural assumptions and help their students to recognize each other and their own selves as cultural beings so they can learn about the culture under study.

Researcher Geneva Gay also states the need for educators to help their students to critically examine the complex dynamics of race, power, and structural inequalities that are ingrained within the community-context of the classroom, as well as within the texts that are discussed (Adams, 1995). When this racial, ethnic, and cultural examination by both teachers and students does not occur, may problems develop (McIntyre, 1997).

Researchers argue that teachers and students need to be taught to read literature in culturally critical ways (Ketter & Lewis, 2001; McIntyre, 1997). The interpretation of multicultural literature is influenced by many factors, including those that are embedded within the socio-cultural context of the classroom. In order to understand the interaction between the reader and the text, it is necessary to include an examination of the many factors within the social context of the multicultural literature classroom that influence how students engage with multicultural literature (Beach, 1997; Bishop, 1997; Dong, 2005; Enciso, 1997; Ketter & Lewis, 2001; Meixner, 2006; Oliver, 1994; Rogers, 1997).

While there is a lack of research on issues regarding the context in which multicultural literature is taught, the research that does explore context suggests that the interpretive climates of multicultural literature classrooms are substantially influenced by the students’ previous learning experiences and cultural backgrounds. The teachers’ cultural backgrounds and experiences also have very powerful impacts on the classroom context, and the literary interpretations that occur, as well as do the community contexts beyond the classroom (Beach, 1997; Bishop, 1997; Dong, 2005; Enciso, 1997; Ketter & Lewis, 2001; Meixner, 2006; Oliver, 1994; Rogers, 1997).

Researchers suggest that teachers must reexamine what it means to “read” in a society that is increasingly pluralistic and complex (Bishop, 1997; Dong, 2005; Fang et al., 1999; Ketter & Lewis, 2001; Meixner, 2006; Rogers, 1997). Educators must concern themselves not only with teaching children how to interpret multicultural literature, but also with questioning the factors that influence reading and interpretation within the contexts that they reflect, teach, and learn in (Rogers, 1997). This indicates that the literature that is taught in classrooms must be chosen carefully and with purpose, and educators must examine the lenses with which they interpret multicultural literature, as well help their students to do the same (Hefflin, 2002; Ketter & Lewis, 2001).

References


Making Meaning and Increasing Skill: Creative Writing Across the Curriculum

by Greg Saunders

This paper examines the efficacy of using creative writing across the school curriculum as a means to assess student knowledge and increase student writing ability in a time of increasing educational standards. It starts by examining the history of creative writing in schools and transitions into analyzing research on the Writing Across the Curriculum program. In addition it discusses the utility of creative writing exercises and examines how they have been used across disciplines, taking into consideration the needs of diverse students. Finally this paper concludes that the implementation of creative writing across the curriculum practices in schools can raise the number of proficient writers and improve and enhance student work in other content areas.

Introduction

Of the many purposes of education, perhaps one of the most important is for students to construct significant meaning from their coursework. When students are tested for knowledge acquisition by means of showing the ability to recite information, however, Wiggins and McTighe (2005) claim that it is not always obvious as to whether or not the students actually understand the material simply because they were able to memorize certain facts. While facts may be important pieces of a concept, developing a working understanding of the concept is a different matter, and not one so easily assessed through means of fact recitation. Therefore, if we are to believe Wiggins and McTighe, educators should consider alternate means of assessment. This paper attempts to find value in creative writing assignments as a way to assess student learning. In this paper, the term creative writing is used to stand for any kind of writing assignment written in an informal voice in any style, usually in the form of fiction, creative nonfiction, or poetry. Currently, creative writing exercises are used sparingly by educators as many do not find educational value in their practice, nor do they see a place in schools for non-academic writing (McCue, 1997). This paper will examine articles from educational journals, academic books, research studies, and interviews of college professors to determine the efficacy of creative writing assignments. In addition, this paper will look to research and other literature to find what value writing exercises of any kind have in subject areas outside of language arts.

According to statistics from the U.S. Department of Education on the writing achievement levels of fourth, eighth, and twelfth graders, only 28% of the nation’s students were at a proficient writing level in 2002 (NAEP, 2002). Proficiency in writing is defined as a level that represents solid academic performance. Students who are proficient in writing have demonstrated competency over difficult subject matter, including subject matter knowledge, transfer of knowledge to real world situations, and analytical skills appropriate to the subject matter. The statistics indicate that only a little over one quarter of the nation’s youth showed competence in meeting the standards set forth by the No Child Left Behind Act (NCLB, 2002), while the remaining 72% are at a basic level or below, demonstrating only partial competence in meeting standards. The NCLB Act is a law which requires schools to meet an increasing standard each year determined by student scores on standardized tests. Failure to meet standards after a certain number of years results in loss of certain federal funds and other such punitive measures. Due to the high stakes nature of the NCLB Act’s standards, this is a big problem for almost three quarters of the nation’s youth and for the nation’s schools as well, since failure to meet the standards will result in not being allowed to graduate for failing students and cuts in national aid to failing schools.

These statistics raise the question of what can be done in our schools and in our classrooms to help improve writing level proficiencies in our students. What writing practices can improve student writing ability? This paper will review literature that examines different strategies, focusing mainly on the efficacy of a program called Writing Across the Curriculum (WAC). As the name implies, WAC is a pedagogical philosophy that schools can adopt in which written assignments are used throughout all subject areas as a means of assessing student learning. The research goes both ways, in support of and in opposition to WAC, and this paper will attempt to critically examine both sides of the argument. This paper will also look at activities implemented by educators that involved the use of creative writing in a variety of content areas and their results in an attempt to find a means of raising student writing ability and therefore help educators and students meet the standards required of them.
This paper is limited in scope to exploring how creative writing and WAC can or cannot be used to assess students and help increase writing ability. Only a small amount of specific research on these topics exists, and therefore this paper is limited by the results of the available research.

Literature Review

Historical Context

The study of how writing has been taught in the past should be conducted before looking at what can be done in the present to teach writing. Bishop (1990) notes that, in the early 1800s, English studies could not be found in higher education at all; only the classics were deemed intellectual enough to be taught. This attitude began to change however towards the end of the nineteenth century, and English programs for women and working class men began to form in England and the United States. This is when the first creative writing class formed at the University of Iowa. According to Iowa’s model, writing was believed to be something that could be nurtured by the teacher, but could not be taught. As writing programs developed, stratification came to form between three types of writing and the teachers who taught them. Expository writing found itself separated from narrative writing, which was further divided into literature and creative writing. Creative writers looked upon expository writing as being inferior, yet literature (which was supported by the academic elite and which supposedly could not be taught) was thought of as the top of the ladder. It should be noted that this stratification is artificial and unofficial, but exists to some degree in the minds of those that teach (Bishop, 1990).

McLeod (2001) states that the theory of writing across the curriculum began in 1970 as an educational reform movement at Central College in Pella, Iowa. The basis of the theory was that writing could be used in all subject areas as a means of problem solving, as a means of critical thinking, as a way to individualize assignments for diverse bodies of students, and that writing should be used in practical contexts as opposed to always being in five paragraph essay format. The movement began to take off in the 1980s and 1990s, and is still embraced by many as a way to stimulate change at a classroom level from elementary all the way to graduate school and to tackle whatever problems schools may face (McLeod, 2001).

To address the issues of what can be done about student writing ability, this paper will delve into research and arguments related to writing across the curriculum, if creative writing can be used as a tool of inquiry to the benefit of students, and if all of this can be used to meet the needs of diverse learners.

Writing Across the Curriculum

As the name implies, writing across the curriculum involves the use of writing and written assignments in every subject area, not just the English classroom. As stated by Maxwell (1996), the types of writing used in each subject area might differ, but the idea behind it is always the same: writing is an everyday tool of communication and helps students to synthesize their learning. Studies show that organizing ideas through writing increases recall and understanding of information, even when used in a math class. In a classroom that has adopted Writing Across the Curriculum (WAC), writing is used to gain new information, to review and consolidate what has been learned, and to extend and reformulate experiences and ideas. The assignments will definitely vary depending on the subject, and should always be designed with the development and learning styles of the students in mind (Maxwell, 1996).

Maxwell (1996) also suggests that, when writing is adopted throughout all subject areas, then it becomes the duty of every teacher to help students improve on their writing skills. Teachers that teach outside of the realm of the language arts classroom might not like this, as they generally care only if the student is able to write well enough to meet the specifications of the particular assignments for that class. That is why writing skills need to be taught during the process of writing and the responsibility for improvement should rest on the students, not the teachers. The intent of each assignment should be used to determine what level of writing skill is appropriate, and writing skills should only be lightly emphasized. Through this method, if it is used across the curriculum, students will come to realize the importance and value of writing well (Maxwell, 1996).

Scarborough (2001) posits the idea that the most important goal of any subject discipline is to cover the specific curriculum of that subject should be fought, at least when that specific curriculum does not include writing or language arts. In fact, research on WAC classrooms has shown that when writing assignments are introduced in science and math classes the students become much more engaged with the information and are able to write about the subject in an interesting fashion. It also gets them interested in learning more. Along with researchers, many theorists, psychologists, and linguists have provided evidence that writing improves learning because it can be used to integrate knowledge, it allows the teacher to see the thought processes of the
student, and it can make connections between ideas that are abstract and concrete. Also implied in the WAC movement is the belief that a teacher need not be a language specialist in order to use writing and literacy events to improve learning in their subject area (Scarborough, 2001).

In an age where schools and students are held more and more accountable, it will take more than the seal of approval from a selection of educational theorists for WAC to be accepted. McLeod (2001) suggests that, once implemented, the WAC program must be evaluated in order to maintain its health and effectiveness. Evaluation standards must be developed by teachers and the various stakeholders in education (parents, politicians, students, etc.) in order that the curriculum meets everyone’s interests. The evaluation should be based on actual class performance if it is really to show the effectiveness of WAC. Evaluation based on a context that is separated from the classroom will result in bad data. Finally, evaluation must be a long term and continual effort in order to improve on any weaknesses that might be found (McLeod, 2001, p. 48).

In A.D. Henderson University School K-8, an evaluation process of their WAC program has already begun. As studied by Miles and Cross (2001), when the program was started, all the teachers in the school were involved and collaborated together to come up with consistent expectations of student writing. Many methods of evaluation were used, including: pre/post writing support questions, pre/post writing assessment, implementation logs, teacher observations and reflections, the Florida Comprehension Assessment Test (FCAT), and observations and reflections by the on-site coordinator. The results displayed an increase in writing ability in both grades tested by the FCAT since WAC had been implemented. The combined mean scores of fourth graders’ ability to use expository writing and narrative writing went up from a 3.2 to a 3.4. For eighth graders, their combined mean score of the ability to use expository writing and persuasive writing went up from a 3.9 to a 4.5. It was found that the most successful part of the WAC program was the collaboration among professionals, and this practice was recommended to any school that wishes to improve their students’ writing abilities (Miller & Cross, 2001).

As suggested by Scarborough (2001), writing across the curriculum encompasses more than just having writing assignments in every discipline. Under the umbrella practice of WAC sits the theory of Writing to Learn. There is a difference between writing to learn and writing to display learning. Writing to Learn involves students posing questions, students creating ideas for discussion or for other projects, students giving the teacher feedback, and students writing simply as a means to get their thoughts in order. These types of writing can be used in any classroom, and include such activities as journals, lab notebooks, notes on readings, very short essays, free writing, and any sort of rough draft. These types of writing are informal, self-expressive, exploratory, and probably not very neat. The purpose is for students to learn from their process of writing, not for the writing to be polished and clean. Teachers should ignore grammar in Writing to Learn activities and instead focus on ideas and connections. Writing to Learn activities also correspond to the National Council of Teachers of English recommendations for teaching writing to ensure academic success for diverse student bodies that include multiple cultures and linguistic styles by providing a nurturing environment for students, connecting student experience to classroom topics, having frequent meaningful writing assignments, and recognizing that language acquisition grows through reading and writing (Scarborough, 2001).

Fred Sedgwick (2000) took it one step further to see how creative writing, especially poetry, could be used across the curriculum as writing to learn. Sedgwick describes a holistic education, in which poetry writing could be used in all subject areas, including science, history, geography, personal, social, and moral education, art, music, and mathematics. Sedgwick believes that current day schooling is too focused on producing workers and the making of money and profit, and should instead be based on finding meaning, relishing and trying to understand the natural world and ourselves. This comes about through the writing of poetry. There are four areas of knowledge that students learn about when they write poetry, no matter the subject area. The first is knowledge about themselves that is revealed in their writing and in their thinking as they write. The second is their environment, and the third is the relationship they have with their environment.
Environment in this sense means everything that surrounds them, from natural to artificial to social. This area of knowledge is particularly important to areas of science like biology, botany, zoology, and physics, and also useful in the realm of social studies like geography, history, and sociology. Finally, students learn about their own language, the ways it can be used and manipulated, how it works, and what they can do with it.

Now that WAC and Writing to Learn have been discussed, this paper will next review literature examining whether creative writing is a useful practice for students and what they have to gain from its practice.

Creative Writing

Creative writing is a form of writing separate from expository and expressive writing and often takes the form of narrative, poetry, drama, or free writing. It is a writing form often limited to the language arts classroom, and sometimes is not even found there (McCue, 1997). Is this because creative writing has no educational utility? This section of this paper will explore theory and research regarding whether creative writing benefits students.

Elbow (1983) defined two separate types of thinking that writing can help stimulate, called first order and second order thinking. First order thinking is generative and intuitive and does not find its purpose in conscious direction or control. It is creative thinking, and is used in free writing, exploratory first drafts, and most other types of creative writing. Second order thinking is just the opposite. It is logical and strives for control and perfection. Often called critical thinking, it is used in slow careful revision and in strengthening thinking and writing. These two types of thinking have been classically set against each other in a dichotomy. To enhance learning as much as possible, they need to come together. They should be used separately but in a way that is mutually reinforcing, and writing, especially creative writing, can be used to do this (Elbow, 1983).

In addition to involving multiple modes of thought, McCue (1997) suggests that creative writing can be brought into classrooms as a tool of inquiry. Whereas expository essay is a means of stating facts, imaginative or creative writing is a means of exploration, of invention. It is intuitive, cognitive, and opens up new possibilities. New kinds of understanding emerge within the writer, and they come to know themselves and their own minds better (McCue, 1997).

Imaginative response, a type of creative Writing to Learn activity, can be designed to systematically support textual interpretation of literary works in the classroom. Critical analysis, or second order thinking, could and should be complemented with imaginative response, or first order thinking. Creative writing used in response reveals more complex interpretive insights than standard expository writing. By reflecting on their own learning through writing, students are also able to explore their own insights while using first order thinking (Knoeller, 2003). But does a higher ability to explore one’s own insights mean an increase in writing ability or an increase in language competence?

Cantrell, Fusaro, and Dougherty (2000) argue that the more students write, the more fluent they will be in the use of their language, especially in the case of journaling. In class journaling will lead to improvement in writing, reading, speaking, and listening. The most effective types of journaling are those set up in K-W-L style. K-W-L stands for Know, Want to Learn, and Learned. The first two are written by the student before the assignment, i.e. what they already know about the concept and what they want to know, and the last part is written once it is completed, i.e. what they have learned. K-W-L journaling is the most effective form as it encourages students to think more actively. Jones (1995) argues, much in the same way that Sedgwick (2000) does with poetry, that through journaling students learn more about themselves and their environments. She believes that through reading student journals and commenting on them, teachers build trust with their students and a better learning community is formed.

Beyond theory however, creative writing has shown its strengths in research studies as well. In one such study, fourth, seventh, and eighth graders who exhibited substandard writing skills were given assignments in journaling, cooperative work, and creative writing. It was shown that their writing ability improved from their respective starting points. Pre- and post-tests were used to gauge improvement, with site A going from 5.5 to 6.2 and site B going from 4.7 to 6.1 (Bartscher et al., 2001). In another study, Pardlow (2003) discovered in his research that creative writing assignments are usually written in a higher quality than academic writing assignments by the same students. Teachers should also find creative writing assignments helpful in getting to know their students better. Pardlow (2003) discovered that he was able to see each of his student’s rhetorical style, work habits, and values through reading their creative writing. To match the research of Bartscher et al. (2003) regarding cooperative work and creative writing, Hertz-Lazowitz (n.d.) found that cooperative work in creative writing, a method known as Success For All, enhanced literacy development in a bilingual classroom as measured by writing.
Not all research supports creative writing and WAC as a way to increase writing ability and student engagement, however. In a recent study, Stapperfenne (2005) compared the scores of biology students for two different assignments: the first a writing assignment using both first and second order thinking, and the second a worksheet, both covering the same material. Though the writing assignment produced scores that were on average 16.5 percent higher than the worksheet, Stapperfenne (2005) concluded that there was no significant difference in the average scores, and therefore writing intensive assignments did not have the advantages touted by WAC supporters. It should be noted that WAC proponents never claim that written assignments will produce higher scores than worksheets.

**Interdisciplinary Creative Writing**

Just knowing the benefits of creative writing and WAC might not be enough to implement them in a classroom that does not traditionally have writing assignments. However, many teachers have discovered the benefits of using creative writing assignments in their classrooms and offer their recommendations to others. These suggestions occur across the curriculum and all feature creative writing assignments that are in line with the theories that have been discussed above.

In the realm of social studies, Whitlock (1994) found that one could combine history and language arts through the process of writing a novel. In his study the entire class was involved and they conducted historical research in order to accurately write a fictional story. Whitlock (1994) found that the students used first order thinking skills and built understandings of history, fiction writing, and editing. The most rewarding aspect was the pride the students took in the finished product. Similarly, Gordy (2005) used a creative fiction writing assignment in a sociology class. Students were asked to write about themselves ten years in the future as an employee in the profession of their choice. Through this writing method, students were able to use a sociological lens to view their future lives and interactions in a way impossible through the reading of literature. Many students also came to insights about the role of technology in the future and the impact of relations with coworkers.

A popular discipline for the use of creative writing is the natural sciences. For chemistry, Alber (2001) offers ideas of how poetry can be used to help show students the human creative side of science. King (1990) takes this further to argue that science and poetry are not disconnected as many would believe since wonder and awe are goals of both. He argues that poetry can be used for observation, connection, and empathetic identification. In the discipline of biology, Kirkland (1997) offers an assignment where students write fictional stories in which they are being sent through the digestive system of a body to identify an unhealthy organ. They must use creative thought and scientific knowledge to properly complete the assignment. Similarly, Young, Virmani, and Kusek (2001) offer a creative writing exercise where the writer takes on the role of a drop of water being sent through natural disasters such as hurricanes and tsunamis. In addition to science and language arts, this assignment also incorporates history and geography because the water droplet must take part in historical disasters.

A possible assignment for an environmental science classroom consists of students writing a short story for an audience of younger children that contains a moral regarding an environmental issue. Not only does this assignment include elements of language arts, science, and visual art, but the interaction of students with children ties in with cooperative learning and social constructivism (Scharle, 1997). In a physics class, Warner and Wallace (1994) experimented with allowing students to use creative writing as a method of lab write up for a project in which they were constructing model drawbridges for a castle. The results showed that the students expanded their linguistic repertoire by using terminology from both the middle ages and from science.

While science may be conducive to written work, a subject that most teachers find difficult if not impossible to incorporate much student writing into is mathematics. However, many suggestions have been made as how to implement creative writing into student assignments. For instance, poetry can be used to write story problems (Jur, 1991), and fictional narrative can be used by students to explain their understanding of mathematical concepts such as negative one or how to isolate a variable (Lynch, 1997). It is also suggested that these assignments help students to solidify their knowledge of mathematical concepts because they are using them in contexts that they create (McIntosh, 1991).

Fiction writing can be effective in the art class as well. Wright and Sherman (1999) had their class make comic strips in order to integrate the two subjects. They found that the activity promoted literacy, higher level thinking, and writing skills.

The variety of possible creative writing assignments that can be used in a classroom are only limited to the creativity of the teacher.

**Writing and Diverse Students**

While most research data shows that WAC and creative writing are generally effective, the needs of a
The diversity of learners need to be taken into account, especially those who are learning the English language. McLeod (2001) suggests that, when working with ESL or ELL students, the teacher needs to realize that there are several types of developing literacy, not just one. Teachers should study literature on second language acquisition, error, and rhetoric, as well as how core ESL writing courses are taught. A stance should be taken by the WAC administrator on how to deal with student writing errors and teachers should discuss with their students’ guidelines on what constitutes plagiarism (McLeod, 2001). Teachers should also work closely with their ESL students, hold high expectations of them, and help them to reach those expectations (Freedman, 1999).

To appeal to multicultural classrooms, readings (especially creative works such as poetry) should come from a variety of multicultural authors (Mehta, 2006), for instance African American jazz poetry (Thomas, 1998). This will serve to help students develop their own voices. Another activity could be having students rewrite classic poetry in their own words from their own perspectives (Mehta, 2006).

As far as working with students who have learning disabilities, studies have shown that having them complete creative writing assignments (especially at an early age), can be a highly rewarding and effective activity and can lead to improvements in their reading ability (Zeluff, 1988).

Using creative WAC can be effective if the teachers know, respect, and care for their students and attempt to understand the difficulties they might have with a writing intensive curriculum.

**Conclusion**

In the age of accountability and standards in which we live, in which students, teachers, and schools are punished by the No Child Left Behind Act for not consistently meeting an ever increasing standard, it is important that teachers develop effective assignments and modes of assessing student knowledge. As of 2002, only 28 percent of the nation’s fourth, eighth, and twelfth graders were at a knowledge. As of 2002, only 28 percent of the

Research also shows that creative writing activities are far from a useless activity and can help engage students in first and second order thinking as described by Elbow (1983).

Most of the research evaluated in this paper supports Writing across the Curriculum as an effective means of increasing student writing ability. For instance, in Miller and Cross’s (2001) study of a school that had adopted WAC, it was found that scores increased within the school after WAC had been implemented. The authors used many methods, including: pre/post writing support questions, pre/post writing assessment, implementation logs, teacher observations and reflections, the Florida Comprehension Assessment Test (FCAT), and observations and reflections by the on-site coordinator. The results displayed an increase in writing ability in both grades tested by the FCAT since WAC had been implemented. The combined mean scores of fourth graders’ ability to use expository writing and narrative writing went up from a 3.2 to a 3.4. For eighth graders, their combined mean score of the ability to use expository writing and persuasive writing went up from a 3.9 to a 4.5. It was found that the most successful part of the WAC program was the collaboration between professionals, and this practice was recommended to any school that wishes to improve their students’ writing abilities (Miller & Cross, 2001, p. 24).

In his interviews with college professors about their implementation of writing in subjects outside of the realm of language arts, William Zinsser (1988) received responses praising these exercises because they allowed them the ability to analyze their students’ thinking. The professors stated that their students’ writing improved in clarity of reasoning and articulation, and that writing assignments are important because they believe that good writing skills will better prepare their students for the real world of employment.

Research by Stapperfenne (2005), however, argues against WAC. In a recent study, Stapperfenne (2005) compared the scores of biology students for two different assignments: the first a writing assignment using both first and second order thinking, and the second a worksheet, both covering the same material. Stapperfenne concluded that there was no significant difference in the average scores, and therefore writing intensive assignments did not have the advantages touted by WAC supporters. However, it should be noted that the writing assignment produced scores that were on average 16.5 percent higher than the worksheet.

Research on creative writing shows that it is an effective practice that can help increase student’s writing ability. In one such study, fourth, seventh, and eighth graders who exhibited substandard writing skills were given assignments in journaling, cooperative work, and creative writing. Bartscher et al. (2001) showed that students’ writing ability improved from their respective starting points. Pre and post tests were used to gauge improvement, with
site A going from 5.5 to 6.2 and site B going from 4.7 to 6.1. In another study, Pardlow (2003) discovered in his research that creative writing assignments are usually written in a higher quality than academic writing assignments by the same students. Pardlow (2003) discovered that he was able to see each of his student’s rhetorical style, work habits, and values through reading their creative writing (p. 36). To match the research of Bartscher et al. (2001) regarding cooperative work and creative writing, Hertz-Lazarowitz (n.d.) found that cooperative work in creative writing, a method known as Success For All, enhanced literacy development in a bilingual classroom as measured by writing.

Overall, a review of the available literature provides evidence in favor of the implementation of creative writing across the curriculum practices in schools in order to raise the number of proficient writers and as an effective means of analyzing student thinking in a variety of different subjects. However, more research should be done to evaluate the effectiveness of WAC according to McLeod’s standards (2001) in schools that have adopted its practice. In addition, it would be helpful if research or statistics could be made available to determine what effect WAC and use of creative writing exercises has had on the proficiency ratings and NCLB writing test scores in schools in which creative writing across the curriculum is actively supported.

**Recommendations for Practice**

Public schools in the United States are faced with the problems of raising writing achievement levels in order to avoid the punitive measures of the No Child Left Behind Act and developing assessment methods that accurately measure student learning. The literature reviewed in this paper suggests that the use of writing across the curriculum and interdisciplinary creative writing assignments could help contribute to solving these problems.

Maxwell (1996) suggests that teachers of all subjects should incorporate writing assignments into their curricula. If all teachers teach writing, then all teachers need to teach skills as well. Writing skills need to be taught during the process of writing and the responsibility for improvement should rest on the students, not the teacher. The intent of each assignment should be used to determine what level of writing skill is appropriate, and writing skills should only be lightly emphasized (Maxwell, 1996).

Not all writing assignments need to be essays, and in fact they can vary greatly depending on the content area in which they are used. Writing to Learn activities can be easily implemented into any subject; examples include: students posing questions, students creating ideas for discussion or for other projects, students giving the teacher feedback, and students writing simply as a means to get their thoughts in order. These types of writing can be used in any classroom, and include such activities as journals, lab notebooks, notes on readings, very short essays, free writing, and any sort of rough draft. Teachers should ignore grammar in Writing to Learn activities and instead focus on ideas and connections. Writing to Learn activities also correspond to the National Council of Teachers of English recommendations for teaching writing to ensure academic success for diverse student bodies that include multiple cultures and linguistic styles by providing a nurturing environment for students, connecting student experience to classroom topics, having frequent meaningful writing assignments, and recognizing that language acquisition grows through reading and writing (Scarborough, 2001).

Once implemented, the WAC program must be evaluated in order to maintain its health and effectiveness. Evaluation standards must be developed by teachers and the various stakeholders in education (parents, politicians, students, etc.) in order that the curriculum meets everyone’s interests. The evaluation should be based on actual class performance if it is really to show the effectiveness of WAC. Evaluation based on a context that is separated from the classroom will result in bad data. Finally, evaluation must be a long term and continual effort in order to improve on any weaknesses that might be found (McLeod, 2001). Methods of evaluation could mirror those used in the research done by Miller and Cross (2001), e.g. pre/post writing support questions, pre/post writing assessment, implementation logs, teacher observations and reflections, standardized test scores, and observations and reflections by the on-site WAC coordinator.

Teachers should also make efforts to use creative writing assignments in their classes when appropriate. Poetry assignments, as argued by Sedgwick (2000), are a good example of this. Pre-writing and exploratory first drafts are also forms of creative writing. Imaginative or creative writing can be used in place of expository essays in order for students to use creative thinking skills instead of critical thinking skills and so they can explore their own ideas or even invent new ones. Of course, a balance must be maintained between assignments that use creative and critical thought (Elbow, 1983).

Another form of creative writing is the journal. Journals can be used in any class for students to record their knowledge and learning in. A popular type of journaling known as K-W-L, which also happens to be a form of Writing to Learn, has
particularly been shown to be beneficial, as documented by Cantrell, Fusaro, and Dougherty (2000).

Creative writing also has the ability to become interdisciplinary quite easily. Teachers should harness this opportunity to help students synthesize and integrate information they are learning in other content areas. In the realm of social studies, Whitlock (1994) found that one could combine history and language arts through the process of writing a novel. In his study the entire class was involved and they conducted historical research in order to accurately write a fictional story. Similarly, Gordy (2005) used a creative fiction writing assignment in a sociology class. Students were asked to write about themselves ten years in the future as an employee in the profession of their choice.

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Creative writing can be used in mathematics as well. For instance, poetry can be used to write story problems (Jur, 1991), and fictional narrative can be used by students to explain their understanding of mathematical concepts such as negative one or how to isolate a variable (Lynch, 1997). Fiction writing can be effective in the art class as well. Wright and Sherman (1999) had their class make comic strips in order to integrate the two subjects.

When instituting curricula that have a large amount of writing assigned to students, it is important for the teacher to consider students who may not speak English as their first language or at all. Teachers should study literature on second language acquisition, error, and rhetoric, as well as how core ESL writing courses are taught. A stance should be taken by the WAC administrator on how to deal with student writing errors and teachers should discuss with their students their guidelines on what constitutes plagiarism (McLeod, 2001).

By following these recommendations, teachers and schools can help raise the writing ability levels of their students to meet national standards and avoid punitive repercussions. In addition students will construct meaning through their writing, use creative thought, find their voices, and hopefully develop a love for writing that will last a lifetime.

References


Bullying in Elementary Schools: 
Perceptions and Implications for a More Peaceful School Experience

by Heather Schuiling

Peer bullying in schools has been shown to cause severe short and long-term negative consequences for both victims and bullies. This paper explores current research on the bullying phenomenon within schools, defines various perceptions of those involved, and discusses the debate over which anti-bullying strategies are showing success in quelling this problem. Many U.S. elementary schools, where children are found to be most impressionable, do not yet have anti-bullying programs established. Studies have shown that systematic, school-wide anti-bullying programs that promote prevention and intervention strategies are more effective than reactive policies. Implications for schools and teachers are made on how best to implement such a program, so that all children feel safe and respected during their school day.

Introduction

Although bullying among school children is an age old phenomenon, it was not until the late 1960s and early 1970s that systematic research began exploring the reasons for and consequences of this issue. It has been well-documented that peer bullying and victimization in childhood can lead to extremely negative psychological effects in adulthood, including social and emotional problems such as depression and low self-esteem for the victims, and an increased propensity for future violence and chemical abuse for the bullies (Mishna, 2004; Olweus, 2004; Walker, 2001).

The United States began researching school bullying in a systematic way during the 1980s, and especially after the highly publicized school shooting incidents in the 1990s (Olweus, 2003b, 2004). The Journal of the American Medical Association conducted a recent study and found that almost 30% of over 15,000 high school students nationwide reported being involved in bullying situations during their years in school (Espelage, 2002; Espelage & Swearer, 2003). Furthermore, in the year 2000, the U.S. Secret Service reported that out of 41 school shooting incidents that occurred between 1974-2000, 71% of the perpetrators reported being victims in a bullying situation (Espelage & Swearer, 2003), stating that they were repeatedly “bullied, attacked, threatened, or persecuted prior to the incident” (Glew, 2005, p. 1031). In addition to being treated as outsiders, these victims who turned to violent crimes felt their actions were justified due to their own maltreatment as young students (Twemlow, 2001).

In light of this report and others, many researchers, school administrators, and child advocates believe that anti-bullying programs should be implemented in the early years of elementary school in order to address the situation when children are most impressionable (Chamberlain, 2003; Glew, 2005). However, discrepancies exist on the ways in which to most effectively address the issue. Some believe reactionary strategies to stop bullying are adequate, while others argue that preventative measures should be implemented before the problem even occurs.

It will prove useful here to discuss the various definitions that are used in current literature on bully/victim issues that will be used throughout this paper. For the duration of the paper, the terms bully, victim, bully-victim, and bystander will be used to describe these character roles.

Bully - Generally speaking, “[b]ullying is a form of abuse, harassment, and violence” (Olweus, 2004, p. 4). In order to be considered a bullying situation the conditions have to be such that the behavior is repeated over time, the relationship reflects an imbalance of power between those involved, and the behavior is intended to cause harm (Olweus, 2004; Twemlow, 2001).

The standard definition of bullying was first coined by Dan Olweus. He states, “a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students” (Olweus, 2003b, p. 12). Another commonly used definition of a bullying situation is defined as “a repeated aggression in which one or more persons intend to harm or disturb another person physically, verbally, or psychologically” (Veenstra, 2005, p. 672).

As previously stated, emphasis is placed on the act being repeated; thus, a single act of aggression is typically not considered a bully incident (Olweus, 1991). Furthermore, there needs to be an asymmetric power relationship where one has less physical or psychological power to defend themselves, and often the bully is older in age than the victim (Olweus,
bullying was higher in the younger years compared to passive victim typically has low self-esteem, is quiet bullies victimize others with little provocation (Espelage & Swearer, 2003).

There are two main types of bullying: direct and relational. Examples of direct bulling include, hitting, tripping, taking other’s belongings, verbal name-calling, or threatening; and relational bullying includes intentionally excluding a person and spreading rumors (Olweus, 2004). One study showed that direct bullying was higher in the younger years compared to relational bullying, which is possibly due to lower verbal skills in younger students (Woods, 2004).

Victim - There are generally considered to be two types of victims: the “passive,” or “submissive,” victim and the “aggressive,” or “bully-victim” (Laser-Haddow, 2006; Olweus, 2004). The latter is less common, comprising 10-20% of victims. The passive victim typically has low self-esteem, is quiet and sensitive, and is often physically weaker than his or her peers (Olweus, 2004). In addition, typical victims are at high risk for severe depression, which could continue into adulthood (Siris, 2004; Veenstra, 2005). Other characteristics of a victim include withdrawn, anxious, and insecure behavior, as well as the inability to make friends easily (Olweus, 2004).

Bully-Victim - Also referred to in articles as “aggressive victim” (Hanish, 2004), or “provocative victim” (Olweus, 1991), this person will both bully others and be a victim in separate instances. He or she is seen to provoke or knowingly annoy other children, and he is easily provoked himself. This student typically has the physical strength comparable to one who bullies, but he displays personal characteristics similar to victims: attitudes of loneliness, low self-worth, and low academic confidence (Duncan, 1999; Glew, 2005). The children who fall into this category typically are the least popular among peers and teachers, and tend to have various behavioral problems related to hyperactivity and impulsiveness (Olweus, 2004; Woods, 2004). Some believe that the bully-victim often suffers from ADHD or other chemical imbalances, which would explain the impulsiveness and provocative nature (Chamberlain, 2003; Pierangelo, 2002). Overall, this character type is at the highest risk for maladjusted behavior and long-term negative effects (Laser-Haddow, 2006).

Bystander/uninvolved peer - One researcher declares that even seemingly uninvolved students, also known as “bystanders” (Entenman, 2005) play an important part in bullying situations. She defines four non-bully roles that these peers may fall into: the “assistant,” who actively joins in the bullying act; the “reinforcer,” who may encourage bullying through laughter and jeers; the “outsider,” who silently approves by not intervening; and the “defender,” who may comfort the victim and try to make the bullying stop (Salmivalli, 1999). Research has shown that even these bystanders can suffer short and long-term negative consequences from bullying incidents, including fear and anxiety, and possibly perform aggressive acts of their own in the future (Entenman, 2005).

Due to the broad and ambiguous nature of the bullying phenomenon, this paper is fairly limited in scope and will focus on bullying situations in younger children, primarily grades K-5. The paper begins with a discussion of the literature on current perceptions of school bullying and resulting consequences of bullying situations. Following this is an exploration of the literature on current prevention and intervention strategies in the United States that are proving successful in quelling this problem. The last part of this paper provides recommendations for practice in both the elementary classroom and school as a whole.

Perceptions of Bullying

Dan Olweus was one of the first to begin the research, mainly in the Scandinavian countries, and he has come to be known as the “Founding Father” of research on bully/victim issues (Espelage & Swearer, 2003; Olweus, 2003a). He helped bring the issue of childhood bullying to the forefront of social issues, and from his work, many researchers have gone to focus on particular aspects of the bullying phenomenon.

In his seminal book on bullying, Aggression in Schools: Bullies and Whipping Boys, Olweus explains and defines the bullying phenomenon as a situation where an individual is repeatedly exposed to aggressive action by one or more other students (Olweus, 1978). Although he originally termed bullying interactions as “mobbing,” and victims were referred to as “whipping boys,” his overall definition of what constitutes a bullying situation has changed little over time and is still referenced heavily today (Espelage & Swearer, 2003).

Bully/victim incidents are typically measured for research studies through a variety of techniques, primarily including self-reports, peer and teacher nominations, and behavioral observations (Espelage & Swearer, 2003). However, peer-reports tend to be the most objective because some victims may take a
“sensitive” interpretation; for example, they falsely identify themselves as being bullied from a one-time incident that may not have been intended to cause harm. Or the victims may take a “defensive” interpretation, where the children do not think they are being bullied when others perceive them as victims (Schuster, 1999).

Bullying is a learned behavior, and it is believed that what is experienced in the home will often be played out at school (Espelage & Swearer, 2003). In addition to exposure to violence outside the home, via the child’s surrounding environment or exposure to media, aggressive behavior is often tolerated and modeled by the adults inside the home (Espelage & Swearer, 2003; Pierangelo, 2002; Veenstra, 2005). To illustrate, one study explored the relationship between peer and familial bullying situations to see if bullying occurred most often among the bully-victim category, and as a result these children displayed the highest rates of loneliness, anxiety, and low self-esteem compared to the straight bully or victim role (Duncan, 1999).

Moreover, male victims have been shown to have a close relationship with their parents, yet often through a controlling or restricting mother (Espelage & Swearer, 2003), compared to female victims who typically had poor familial functions and were often rejected by the mother (Duncan, 1999; Veenstra, 2005). Similarly, bullies and bully-victims show a high rate of problems with their parents, including low levels of caring, high physical and verbal aggression, and inconsistent monitoring and disciplining techniques (Duncan, 1999; Espelage & Swearer, 2003; Pierangelo, 2002).

There has also been shown to be gender differences in bully/victim issues. Both genders tend to be bullies and victims (Frosch, 1998). However, boys seem to bully at a higher rate than girls (Duncan, 1999; Glew, 2005; Veenstra, 2005). In addition, research has shown that boys are more physical in their bullying techniques, and girls tend to use more indirect methods (Frosch, 1998; Loeb, 1998; Olweus, 2003b). For example, female bullying includes the relational techniques previously mentioned, such as manipulating friendships, spreading rumors, and intentionally excluding one from a group (Olweus, 2003b). Also, girls tend to be passive victims more often than boys who are more likely to be aggressive victims (Veenstra, 2005).

Equally important, researchers are finding that race, cultural, sexual orientation, and socioeconomic factors may play a role in bully/victim situations (Lipkin, 2004; Mishna, 2004). For example, existing research shows that students of a minority race or ethnicity tend to be victims more often than bullies (Espelage & Swearer, 2003). Another study revealed that more students who received free or reduced price school meals were victims of bullying than those who did not (Glew, 2005). A third study observed that bystanders tended to come from a higher socioeconomic status, compared to victims or bullies (Veenstra, 2005). And, it was shown that students who are gay or perceived to be gay are bullied more often than any of the previously mentioned groups (Lipkin, 2004). However, there is a dearth of research in these areas, which makes it hard to come to a conclusive decision about the role these factors play.

Two common myths about bullying include: bullying is a result of a large classroom or school size, and bullies are insecure and low academic achievers. These factors have not shown empirical support (Olweus, 1991). In fact, bullies did not show a decrease in academic success and often received above average grades in school, including higher SAT scores, compared to both victims and non-victims, possibly insinuating better knowledge of how to manipulate situations, especially how not to get caught during a bullying situation (Glew, 2005; Woods, 2004). Indeed, it was found that bullies tended to be highly socially skilled, intelligent, and maintained high self-esteem (Woods, 2004). This contradicts what others have said about children who bully—that they are frustrated from low academic achievement and therefore become aggressive (Olweus, 1991).

By contrast, evidence suggests that lower academic success among victims and bully-victims could be from the fact that many children will skip school in order to avoid the bullying situation or that their concentration is impaired from the recurring event (Glew, 2005). This counters the assumptions that victims are typically picked on because of their academic excellence (Woods, 2004). To illustrate, in a large-scale study of self-reported victims, one-third reported impaired concentration, nervousness, or panicky feelings during the school day (Glew, 2005). For this reason, students who reported unsafe feelings at school along with sadness, loneliness, and decreased academic achievement were likely involved as victims in a bullying incident (Glew, 2005; Laser-Haddow, 2006).

In another case, a study found that the perceptions of victims, peers, and teachers thought victims had poor social skills, which included nonassertiveness, withdrawn and solitary behaviors,
and possible provocation at times (Fox, 2005). In addition, students with special education needs (SEN) are seen as highly vulnerable to bullying attempts due to their social isolation and lower levels of confidence (Torrance, 1997). As a result, victims are often seen as easy targets for bullying. For this reason, it has been suggested that social skills training among the victim population could help build self-esteem and therefore decrease peer victimization (Fox, 2005). To demonstrate the importance of building social skills among victims, one study used data from a longitudinal survey and found that youth who were repeatedly bullied before the age of 12 were showing low success as teenagers in their communication skills (Laser-Haddow, 2006). Furthermore, this same study saw that 46% of young adults still dwell on their victimization as a youth, and in extreme cases, think about suicide or committing acts of violence (Laser-Haddow, 2006).

In addition to bullies often receiving average to above average grades, teachers often rate them as popular among their peers (Espelage, 2002; Pierangelo, 2002). This could be because young children see the bully as “cool” because of the power and independence that he or she exhibits (Espelage & Swearer, 2003). Also, the bystanders most likely do not want to become a victim themselves and will promote the bully’s status through praise and approval (Salminvali, 1999). The need for inclusion is very important among youth and therefore peers reflect a high influence over such matters (Torrance, 1997). The need for peer confirmation in the late elementary and early middle school years is very important and, subsequently, rejection and victimization can be most harmful during this time (Espelage & Swearer, 2003; Laser-Haddow, 2006).

In a study to evaluate if change occurred over time in bullying roles, researchers tracked 1,722 students from 4th to 6th grade (Hanish, 2004). Results showed that the rate of bullies increased over time, especially during the transition from elementary to middle school, with 7th grade showing the highest occurrences of bullying incidents (Duncan, 1999; Espelage, 2002; Hanish, 2004; Laser-Haddow, 2006). This phenomenon could be due to various reasons. First, with age comes increased physical and cognitive development, and second, there could be an increased exposure to violence (Hanish, 2004). Most likely though, it is due to increased pressure to find a place among the new social structure of middle school, and bullying is seen as a way for youth to stand out and possibly increase social status within a group (Espelage, 2002). Moreover, among the bully-victim group, levels were shown to decrease with age, possibly due to crossover to either a straight bully or victim status (Hanish, 2004). However, the children that remained in the bully-victim group were at the highest risk of long-term maladjustment due to their characteristic role of provocative behavior and general dislikeability among peers (Hanish, 2004). Only one-quarter of victims remained in the victim group after the two year study, with most becoming uninvolved peers. Once again, the implication here is to introduce bullying prevention methods to children in their early years of school before they reach the unstable and pressuring years of middle school (Hanish, 2004).

**Consequences of Bullying**

Short-term consequences of being a victim include disliking school, especially recess, gym, and the cafeteria where the majority of bullying incidents occur (Anderson-Butcher, 2003); distrusting peers; and marked trouble making friends (Entenman, 2005). However, these things may change if the victims get the support they need (Olweus, 2004). Unfortunately, if they do not, long-term psychological effects may set in, including anxiety, sleep disorders, loss of self-esteem, delays in physical and cognitive development, and post-traumatic stress disorder, with extreme cases resulting in suicidal or violent tendencies (Entenman, 2005; Espelage & Swearer, 2003).

Victims, in addition to blaming themselves, often fear that if they do report the situation it might make things worse, with possible retaliation on the part of the bully (Mishna, 2004; Olweus, 2004). One study of over 3,000 elementary students found that less than half of both victims and bully-victims reported bullying incidents (Glew, 2005). However, most children want adult involvement in the matter (Froschil, 1998), and once they do report, most feel relieved when the situation is revealed (Olweus, 2004). But, if victim reports are not validated, they may choose to stop reporting and keep feelings of loneliness and anxiety inside (Mishna, 2004). Hence, teachers and parents have the responsibility for closely following up the situation to assure the safeguarding of the victim (Olweus, 2004).

Yet, many teachers admit that they may choose not to intervene into a known bullying situation because they fear their approach will not be adequate to quell the negative activity (Espelage & Swearer, 2003) and may even exacerbate the situation (Mishna, 2004). Some simply feel that ignoring the problem may help it disappear (Froschil, 1998; Mishna, 2004) or that the children will naturally work out the situation themselves (Chamberlain, 2003). Results show that it is imperative for adult involvement to work in order to curb bullying situations (Olweus, 2004). Teachers can help by
encouraging the bully to verbalize why he or she is bullying others and what they are feeling when they bully (Pierangelo, 2002). It is therefore important that teachers get adequately trained on how to identify and deal with bullying situations.

Interestingly, it has also been shown that, in schools where the professional culture suffers from poor leadership, little professional cooperation, and low consensus on professional matters, there is a higher rate of school bullying. This is compared to schools where the culture is more positive (Roland, 2004). Thus, teachers and other school staff do indeed play an important role in determining if bullying incidents will occur.

To illustrate, one study found that when teachers changed a few of their own classroom practices, beneficial results occurred for children who were being victimized (Siris, 2004). These practices included three main ideas. First, the teachers increased the amount of praise given to students who were being victimized, which often increased the student’s attitude and feelings of competence. Secondly, the teachers provided a chance for more autonomy and self-direction, which increased the student’s feelings of self-worth; and lastly, these teachers provided more chances for creating personal relationships through closer interactions between students such as group work activities (Siris, 2004).

Current Intervention Strategies

Within a peer group, established social relations or “roles” determine the hierarchal structure and status of members, and these roles are said to be very hard to change (Salmivalli, 1999; Torrance, 1997). For this same reason, it is not a solution to simply change the classroom of the victim, since his insecurity and fearfulness will, most likely, remain with him and make him an easy target for further peer victimization (Salmivalli, 1999). Because peers are often more aware of bullying incidents than teachers (Fox, 2005), the “participant role approach” to bullying states that bystanders play a large role in maintaining bullying situations. Therefore, they can also play a part in solving bullying problems (Salmivalli, 1999). The suggestion is to increase anti-bullying roles through group training that includes, awareness raising, self-reflection, and a chance for students to role play different scenarios to better prepare them for the spontaneous reaction necessary during a bullying episode (Pierangelo, 2002; Salmivalli, 1999).

As stated previously, during the elementary school day the majority of bullying incidents occur outside of the classroom in the cafeteria, gym class, hallways, and primarily on the playground, which gives reason for anti-bully training to support staff as well as teachers (Froschl, 1998). It was shown that increased supervision on the playground did not make a difference in the amount of bullying incidents; rather, the supervisors needed training in anti-bullying techniques (Anderson-Butcher, 2003). As a result of proper training, and treating the incident immediately where it occurred, students could return to class more focused than if the situation was not promptly addressed (Anderson-Butcher, 2003).

An interview was conducted recently between two leading authorities on bullying in the United States (Chamberlain, 2003). Both Susan Limber and Sylvia Cedillo, agree that bully/victim issues in public schools are a serious problem that must be addressed (Chamberlain, 2003). They and others agree that bully-prevention methods must start at the elementary level before the characteristically most aggressive and violent times of middle and high school (Chamberlain, 2003; Espelage & Swearer, 2003; Twemlow, 2001). Furthermore, Limber and Cedillo agree that reactionary anti-bully programs such as “Zero Tolerance” are not effective because these programs focus on removing the individual student from school instead of systematically treating the situation as a school-wide problem (Chamberlain, 2003; Espelage & Swearer, 2003). In contrast, they view successful programs as having clear and consistent guidelines, consequences, and include both the students and relevant adults’ active involvement in the program (Chamberlain, 2003; Laser-Haddow, 2006). Additionally, a necessary foundation for successful bullying prevention and intervention programs should be based on the existing ecological factors surrounding the situation (Espelage & Swearer, 2003); hence, in addition to individual characteristics of the bully or victim, environmental, and cultural influences need to be addressed (Espelage & Swearer, 2003).

To date, there have been many successful programs that focus on the middle and high school years (Olweus, 1991, 2003a). One program that has been specifically geared for grades three through five has been shown to have a significant effect on decreasing the rates of bullying at the school site (Rock, 2004). “No Bullying Allowed Here” is a school-wide program that includes lesson plans that are comprised of lecture, group work, role playing, and discussion (Rock, 2004). The program states specific goals for students, staff, and parents and has been shown via student surveys to reduce the amount of bullying behavior in the school (Rock, 2004). From the success of implementing the program in the older grades of elementary school, lesson plans for
grades K-2 are in the process of development (Rock, 2004).

Concurrently, other comprehensive guides and classroom activities are being created and implemented that include lesson plans for grades K-3 that address the major themes of bullying issues (Froschl, 1998). For instance, from a study that looked into how elementary school teachers can address the problem of bullying through K-3 children’s literature, many teachers are using this strategy (Entenman, 2005). Teachers in the study read books that contained a bullying theme to open up discussion in their classrooms. The teachers found that they could address the situation without stigmatizing their students and thought it to be a powerful way to open up dialogue (Entenman, 2005).

Furthermore, another study evaluated five model anti-aggression programs in use today (Leff, 2001). “Promoting Alternative Thinking Strategies (PATHS),” “Second Step,” “First Step to Success,” “Anger Coping Program,” and “Brain Power” were all shown to decrease levels of aggression in elementary school children (Leff, 2001). For example, “First Step to Success” is a program that works with at-risk kindergartners who exhibit anti-social behaviors such as bullying others, defiant actions, and aggression. This program involves the parents and teachers to help encourage and implement improvement of social skills among these children (Walker, 2001).

**Conclusions**

Contrary to the once popular belief, bullying is not simply part of “growing up” (Olweus, 2004). It has been stated that bullying is a form of aggression that, if not treated in young children, can result in increased forms of juvenile delinquency and in extreme cases, violence or suicidal tendencies in adulthood (Espelage & Swearer, 2003; Loeber, 1998). This paper has explored current research on the various perceptions surrounding the bullying phenomenon; considered the short and long-term consequences of those involved in bullying situations; and discussed the debate over which current intervention strategies are showing success in quelling this problem.

In short, research has shown that a propensity for becoming a bully or victim often begins in the home through a parent or sibling (Duncan, 1999). These attitudes are often then reflected during the school day. In addition, there are gender differences in bullying roles and techniques (Veenstra, 2005); hence, understanding these differences can influence intervention strategies. Moreover, many myths exist about the academic and social skills of bully/victim character types (Woods, 2004); and change in these roles has been shown to occur over time (Hanish, 2004).

Consequently, current research shows that it is imperative for teachers, parents, and other relevant adults to validate the claims of bullying made by a victim, and take a proactive approach to stop the incident from reoccurring (Olweus, 2004). Anti-bully training is seen as a necessary step for all school staff, as well as a systematic, school-wide approach to ending school bullying (Brewster & Railsback, 2001; Chamberlain, 2003).

Overall, the past two decades have shown increased efforts within the United States to address the problem of peer bullying and victimization in schools. However, there needs to be continuing assessment of bullying prevention and intervention programs and a proactive approach to target bullying in early elementary years when children are most impressionable. In addition, further research is greatly needed in the area of racial, cultural, sexual orientation, and socioeconomic factors that may serve as motivations for bullying in order to better understand this complex phenomenon.

The following section will highlight current anti-bullying classroom curriculum, as well as school-wide programs geared towards younger children, grades K-5. These strategies are showing positive results in both addressing the issue of bullying and preventing future incidents from occurring.

**Recommendations for Practice**

As stated repeatedly in current research on bullying, it is no longer acceptable to assume bullying is simply a natural part of growing up. Evidence suggests that there are many short and long-term negative consequences associated with bullying and peer victimization. In this section, I will discuss some specific and broad strategies that can be employed in both the elementary classroom and the entire school. By introducing these anti-bullying prevention and intervention strategies to young children, there is a greater chance of making a lasting impact on youth and subsequently reducing the bullying phenomenon as a whole.

To begin with, it is ideal for there to be a comprehensive, school-wide bullying prevention program established in the school. Such programs can either be purchased, or the school can develop a program of their own. In the Northwest, a useful resource for anti-bullying resources and programs can be found in the Northwest Regional Educational Laboratory’s report on “School-wide Prevention of Bullying” (Brewster & Railsback, 2001). Comprehensive means that the anti-bullying program
should, in addition to having themes posted around the school, be integrated into the existing classroom curricula. In this way, instead of an occasional lesson or activity on bullying, the information will be ongoing and therefore, more emphasized.

Furthermore, the anti-bullying curriculum needs to include lessons and activities that are fun and engaging, and age-appropriate. Activities that include role-playing and simulations are effective for preparing children in how to adequately respond when a spontaneous bullying incident occurs. Equally important, the curriculum must be culturally sensitive and promote equity, and never label or stigmatize students.

Another example of a comprehensive, anti-bullying program includes adequate training of all school personnel. Adults need to first understand the importance of implementing such a program in order for it to work effectively. In addition to training teachers and principals, playground monitors, cafeteria workers, janitors, and bus drivers all can play an important role in learning how to identify and adequately address bullying situations. Most importantly, adults need to learn the importance of validating all bullying claims and the appropriate ways to intervene into observed or reported claims. They should not expect the child to handle the situation on his own. Advice such as “just ignore him” or “stand up for yourself” serves to further alienate and blame the victim. Also, an effective program will seek involvement of the families of students in both helping to develop the program, as well as reporting incidents that they have heard about or witnessed. The schools should provide information on resources for the families of bullies or victims to further help them deal with the situation.

Finally, in addition to, or in lieu of a school-wide program, the classroom teacher can develop his or her own classroom anti-bullying policy. The teacher should start with an explicit explanation of bullying and voice her expectation that no type of harassment is allowed in the classroom or school. As stated previously, the topic of bullying should be integrated into the teacher’s curriculum, and practices that promote student collaboration and respect, such as group work activities, should be employed. Additionally, a teacher’s log noting the occurrence of bullying incidents will help to explore patterns of bullying, the strategies used, and the subsequent outcomes. Also, teachers should encourage open communication with school staff and the families about reporting bullying incidents involving their students.

In conclusion, students need to feel safe at school in order for adequate learning and the building of social bonds to occur. Comprehensive, classroom and school-wide bullying prevention programs will help achieve this goal. Schools and communities should research existing programs and decide if they are cost-efficient, or develop their own program. But overall, the program should be easy to adopt and implement, and should chart decreases in bullying incidents over time. All children deserve to feel safe and respected while in school, and it is the job of adults to ensure this takes place.

References


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The Educational Attainment of American Indian/Alaska Native Students in the United States

by William M. Shea

Education has played a large role in the forced assimilation of American Indian/Alaska Natives in the United States, leaving many AI/AN alienated and mistrustful of education, which in turn contributed to the economic and social stress that is prevalent in many AI/AN communities. Legislation in the 1960s and 1970s began to reverse the negative trends in AI/AN education. Research has discovered several trends that have improved the academic performance of AI/AN: instituting a bilingual/bicultural approach, using place-based education, increasing family and community involvement, integrating AI/AN language, culture, and learning styles into the curriculum, using a both/and approach, and using alternative assessments. AI/AN academic performance has been improved by educators who acknowledge, respect, and incorporate AI/AN cultures into the classroom.

Introduction

American Indian/Alaska Natives (AI/AN) have traditionally performed poorly in the educational system in the United States. The combined effects of missionaries, assimilationist policies and policies of cultural genocide have led to the marginalization of AI/AN in mainstream U.S. education and culture. This marginalization has led to ill effects for tribal communities, leading to substance abuse, poverty, crime, and even death (Clarke, 2002; Hammer & Demmert, 2003; NCES, 2005).

Several policies and reforms in the United States since the 1970s have halted many negative trends and even begun to improve the academic standing of AI/AN. While AI/AN are still not equal to the rest of the U.S. population in most academic statistics, improvements have occurred. This paper will discuss what factors have contributed to this improvement. It will also discuss what factors have slowed or minimized improvements. Educators will be able to use the knowledge of these factors and techniques to prevent current and future native students from succumbing to the social ills so prevalent in AI/AN communities today.

The most important factor in improving success for AI/AN is making education culturally relevant. “Research suggests that better learning occurs when teachers transform their educational practices and the curriculum reflects the home culture from which children come” (Yazzie, 1999, p. 87). This includes involving the students’ family, elders and tribe in the educational process (Pewewardy, 2002). It is important for the teacher to not only acknowledge AI/AN culture but to treat it as valuable as well. Schools need to strive to make education both meaningful and relevant if they are going to be able to overcome the distrust, opposition and alienation many AI/AN feel towards schooling due to the history of assimilation (Apthorp, D’Amato, & Richardson, 2002; Clarke, 2002; Jacobs & Reyhner, 2002; Ongtooguk, 2002). One way of accomplishing this is by localizing control, which means giving tribes control of their own education (Villegas & Prieto, 2006).

AI/AN face large cultural and linguistic barriers when entering the school system. A bilingual/bicultural approach values students’ home lives and allows them to be successful in the dominant culture without sacrificing their own (Shutiva, 2001; Yazzie, 1999). AI/AN students have a language style that differs from the mainstream culture, with different speech patterns and often a focus on storytelling (Delpit, 2006). Accepting and incorporating these differences into the curriculum is essential to keeping students on track with their mainstream peers.

Understanding the learning styles of AI/AN students is important in order to motivate them to learn. They tend to think in a global, holistic way, tend to be visual learners and spend less time talking and more time reflecting (Pewewardy, 2002). In addition to understanding different learning styles, it is important to give education a purpose. This can be accomplished by teachers incorporating students’ home cultures into the classroom (Pewewardy, 2002). Even more effective in incorporating their home cultures to provide authenticity is having a teacher who is AI/AN and shares the students’ culture and provides them with someone who understands them and is a positive role model (Trujillo, Viri, & Figueira, 2002).

This paper will address several problems and conflicts that face educators when considering how to approach their AI/AN students’ education. One is the great variability of individuals within tribes and the great variability between tribes. This variability has led some to argue that there is no such thing as a AI/AN learning style (C. Barnhardt, 2001). Another area of controversy that flows from evidence is that
giving control to tribes does not necessarily lead to academic success because tribes may put other priorities first (Tippeconnic, 1999). Funding for successful curriculum application can be inconsistent (Apthorp et al., 2002). Many of the language programs that have contributed to literacy improvement do not increase standardized test scores (Reyhner, 2001). This becomes an issue when considering the No Child Left Behind Act of 2001 (NCLB) which dictates that states are held accountable, and can be punished, for test scores. This means that successful strategies that are not improving scores will be abandoned (Demmert, 2006). Even when strategies are effective, there is still the issue that many Native Americans are ingrained with a sense of academic inferiority due to the past (NCES, 2005).

Before discussing in detail what has contributed to AI/AN academic improvement since the 1970s, it should be noted that the existing research on AI/AN education reveals very limited, and at times conflicting, information. Research tends to focus on specific tribes and communities, which minimizes the ability to generalize results (Hammer & Demmert, 2003). Also, most research is based on tribally controlled schools, despite the fact that the majority of Native students attend public schools (Apthorp et al., 2002). In their literature review, Apthorp et al. (2002) found many “descriptions of curricula and very few reports on students’ academic achievement when the curricula were implemented” (p. 6).

The tone of the research is called into question as well. Research tends to focus on what is wrong with AI/AN students and schools when it would be more productive and “important to identify the roles communities can play and what they can contribute to creating a system of education that values, affirms and improves the learning opportunities and life successes of AN students” (Villegas & Prieto, 2006, p. 10). The research tends to focus on what is wrong with AI/AN and their students and not on what they are doing to improve their academic performance. Because most tribes are not highly organized and heavily researched, this literature review attempts to focus mainly on studies based on smaller tribal communities rather than on the abundance of research coming out of larger tribes like the Navajo.

A Review of the Literature

Cultural Differences: Native American History

The history of AI/AN since the arrival of Europeans in the 16th Century can be viewed as two separate periods. The first was the missionary period (1568-1870), followed by the federal period (1870-1968) (Warner, 1999). During the missionary period, religious educators attempted to Christianize AI/AN by infiltrating their territories and indoctrinating them with a European worldview. During the federal period, the government began instituting policies that affected AI/AN daily life and education.

The main legacy of the federal period is the education of AI/AN at boarding schools. Boarding schools, which ran from 1870-1928 in the United States and from 1861-1984 in Canada, were situated off reservations and often were situated in other states. Children were not allowed to speak their tribal languages, practice their tribal beliefs or see their tribal families except for a few short visits a year. Boarding schools attempted to “civilize” students by teaching them orderliness, cleanliness, uniformity, conformity, and by attempting to reform their emotional and affective ties to their societies (Lomawaima, 1999).

Education was considered the best means of assimilating AI/AN into a civilized, Christian America (C. Barnhardt, 2001). Boarding schools interrupted the transmission of culture from one generation to another, causing many traditions to be lost. Women held at boarding schools lost their cultural customs of child rearing and nurturing because they had no example to follow (Clarke, 2002). “Children found themselves in difficult, often hostile circumstances where their own language, religion, culture, behavior, and individualism were under constant, systematic attack” (Lomawaima, 1999, p. 17). Boarding schools created a “subtractive bilingualism,” which means that AI/AN were failing at their new culture while losing their own (Lipka, 2002, p. 2). “[AI/AN] are the way we are today because of those [residential school] men who came” (A Century of Genocide in the Americas, 2002).

The Meriam Report (1928) found that the educational system was negatively affecting AI/AN and called for reforms. The Indian Reorganization Act (1934) and the Alaska Reorganization Act (1936) gave tribes the right of sovereignty. At the same time, the Johnson-O’Malley Act (1934) made federal funds available for the education of AI/AN. Progress was halted due to the Cold War in the 1940s and 1950s as the United States focused on competing at an international level. The focus changed from educational reform to National Standards and private economic growth (C. Barnhardt, 2001).

The 1960s and the huge political force of the Civil Rights movements benefited the cause of AI/AN education. The Meriam Report was reconfirmed by several Task Forces (C. Barnhardt, 2001). Several educational acts were passed, including one on bilingual education. The establishment of AI/AN school boards at federal Indian schools was mandated by President Johnson in 1968.
Native American education (Strang, von Glatz, & Hammer, 2002) because of the failure of the state at educating Natives (Strang, von Glatz, & Hammer, 2002). This push to return control of education to AI/AN continued in the 1970s. The Alaska Native Claims Settlement Act (ANSCA) of 1971 provided Alaska Natives with huge tracts of land and the opportunity to control their own education, though this opportunity was mainly squandered (R. Barnhardt, Kawagley, & Hill, 2000). The Indian Education Act (1972) gave organizations and programs involved with AI/AN education funds to meet the cultural needs of students. The Indian Self-Determination and Education Assistance Act (1975) provided contracts for the tribal operation of schools. Education Amendments (1978) established a policy within the Bureau of Indian Affairs (BIA) to aid AI/AN control of schooling. These acts were questioned as critics felt there was no Native way of learning because there were such differences between individuals and tribes (Pewewardy, 2002, p. 24). The Indian Child Welfare Act (1978) was “designed to protect the integrity of tribes and the heritage of Indian children by inhibiting the practice of removing these children from their families and tribes to be raised as non-Indians” (Warner, 1999, p. 72).

The 1980s and 1990s saw an increased focus on promoting AI/AN control and success in academics. The Tribally Controlled School Act (1988) gave control to local school boards and provided funding for the operation of schools. The Native American Languages Act (1990) made it a priority to preserve Native languages that were not already extinct. The Indian Nations at Risk Task Force (1991) and the White House Conference on Indian Education (1992) found that although AI/AN academics had been improving since the 1970s, they were still at great risk (C. Barnhardt, 2001). Title IX of the Improving America’s Schools Act (1994) attempted to improve AI/AN student performance, increase the number of Native American teachers, and provide money for a variety of goals like student scholarships and academic development.

The history of both the missionary and federal periods contributed to the horrible poverty and the associated social problems of the AI/AN population (Strand & Peacock, 2002). Because of the actions of activists and the government in the past 35 years, progress has been made. “This movement toward Indian control of Indian education actually started in 1988, secured legislation in the 1970s, survived the 1980s, picked up momentum the 1990s, and promises to gain even greater significance beyond 2000” (Tippeconnic, 1999, p. 33). The implications of the No Child Left Behind Act of 2001 (NCLB), the first major educational legislation affecting AI/AN in the new millennium, will be discussed in detail later on.

**Representation of AI/AN in Statistics**

There are 600 federally and state recognized Native American tribes today (Tippeconnic, 2003). These tribes constitute about 1% of the total U.S. population. Of the 4.1 million total AI/AN population, 2.5 million are pure, non-mixed Native Americans (Manuelito, 2003, p. 2). 630,000 of the total are Alaskan Native. “In 2000, there were 1.2 million [AI/AN] children and youth of school age (5-19), about 90% of whom attended public schools” (Manuelito, 2003, p. 2). AI/AN represent approximately 1% of the total student enrollment in the United States.

Collectively, AI/AN are overrepresented in a variety of negative areas. Heavy and binge alcohol use among AI/AN is higher than the national average, and both illicit drug use and cigarette use are twice as high as the national average (Clarke, 2002). In the past 25 years, 20% of AI/AN have heavily abused drugs (Clarke, 2002). Several causes of death of AI/AN adolescents (15-24) far exceed the national average: motor vehicle and other accidents (3X), suicide rate (3X) and homicide (1.2X) (Clarke, 2002). Violence at school between individuals and between groups is higher than the average (Clarke, 2002). Acts of violence on the reservation are two times the national average, and this normalizing of violence can negatively affect learning (Clarke, 2002). Low birth weight and postneonatal deaths of AI/AN infants far exceeded White averages, and poor prenatal care of AI/AN exceeded Whites by as much as three times (Hammer & Demmert, 2003).

Economic stress is a large factor contributing to the social ills facing AI/AN communities. Low average incomes and few or no job options affect their quality of life. Roughly one third (36%) of AI/AN live below the poverty level, a rate which is three times the national average. Unemployment is as high as 85% on some reservations and has been associated with both crime and substance abuse (Clarke, 2002). In 1995, it was found that almost half of AI/AN households are run by women, 42% of which were teenagers when they became mothers (Clarke, 2002). Of those mothers, 34% had less than a high school education (NCES, 2005). Households headed by women were found to have an increased rate of poverty; further, these mothers had little or no involvement in their children’s education (Clarke, 2002). “In poor communities, schools are poorer and less able to motivate students and their parents” (Clarke, 2002, p. 5).
Native Americans in School

The effects of boarding schools still linger today. AI/AN students either lost their cultural identities or learned to mistrust education, resulting in poor academic achievement, high dropout rates and feelings of depression and alienation. History has taught AI/AN to believe that being educated means relinquishing their Native-ness, and this has created a viewpoint that education is untruthful (Apthorp et al., 2002; Constantino, 2007; Ongtooguk, 2002). In addition to this distrust is the huge psychological toll that sexual abuse has placed on AI/AN communities. It is estimated that between 94% and 100% of all boarding school residents were sexually abused (A Century of Genocide in the Americas, 2002). “Assimilation has not worked, but its impact is reflected in education statistics and in the poor quality of schooling received by many American Indian students today” (Tippeconnic, 1999, p. 34).

AI/AN performance in education in the United States has not been very strong. SAT scores and other standardized tests for AI/AN are below the national average. “An NCES 2005 report indicates the drop-out rate for Native American students is twice the national average – the highest rate of any U.S. ethnic or racial group” (Demmert, 2006, p. 11). Between 9th and 12th grade, the drop out rate is 38%, but the more revealing statistic is the drop rate between kindergarten and 12th grade, which is between 80%-90% (Constantino, 2007). Demmert also found that only 51% of Native students graduate compared to 75% of White students, and 80% of those AI/AN graduates will need postsecondary education in order to be able to function as adults.

Those AI/AN students who stay in school are underachieving. Only 43% of AI/AN 4th grade students are at or above a basic reading level, compared to 73% for White students (Reyhner, 2001). A 2002-2003 BIA report on AI/AN test performance found that only 50.5% of students were proficient in language arts and only 54% were proficient in math (Tippeconnic, 2003). Another study found that both 4th and 8th grade AI/AN students had a lower reading proficiency level than all other students nationally (Rampe et al., 2006). AI/AN students performed worse in reading than every group except African Americans, and urban AI/AN 4th graders performed better than their rural counterparts (Rampe et al., 2006). In math and science in grades 4, 8, and 12, AI/AN students scored lower than Whites but higher than Hispanics and African Americans (Tippeconnic, 2003). A few years later, Rampe et al. (2006) found that mathematically, AI/AN 4th and 8th graders were performing worse than all other students and groups nationally.

Rampe et al. (2006) provide a noteworthy statistic about the overrepresentation of AI/AN students in special education and remedial classes. “Although AI/AN students accounted for only 1% of the total public school enrollment during the 1999-2000 academic year, they accounted for 1.3% of all students served under the Individuals with Disabilities Education Act … a 30% higher than expected representation” (p. 2). AI/AN students are also overrepresented in many disability categories, including developmental delay, orthopedic impairments, autism, deaf-blindness, traumatic brain injury, specific learning disabilities, speech or language impairments, mental retardation, and emotional disturbance (Rampe et al., 2006).

Additionally, the under-representation of AI/AN in the educational realm is apparent. AI/AN students are mainly taught by White teachers, with AI/AN teachers in public schools representing only 16% of the total teaching force (Manuelito, 2003). This means that most AI/AN students do not have a role model that represents their culture in their classrooms. The rate of AI/AN students going to college is very low, and there is a large number of these students that leave before completing their degree (Demmert, 2006). “We have slightly more Alaska Native males in prison than we do in college. That’s an educational statistic. And, by the way, the State of Alaska spends five times more for incarcerating AN males than in educating them” (Ongtooguk, 2002, p. 5).

The Path to an Academically Successful Future

Despite all of this negativity, there is reason to be optimistic. It has been found that at nine months of age there is no difference in the performance of basic cognitive tasks between AI/AN and the general population (NCES, 2005). This indicates that later academic differences between AI/AN and mainstream students are environmental and not genetic. More AI/AN students are taking AP tests than ever before, attainment expectations have increased, and in the past 20 years more students have completed high school and continued to college (NCES, 2005). “A study by Bordeaux indicates high school completion rates increased from 20-30 percent in 1970 to 65-80 percent in 1996” (Tippeconnic, 1999, p. 42). Between 1976 and 1994, the college enrollment of AI/AN students increased 67% (Shutiva, 2001).

Definition of Native American Success

Traditional measures of success are important to AI/AN communities. They want their students to perform well on testing, not drop out of school, take more AP tests, study fields like math, science, and
engineering, get good jobs, be economically competitive, and be financially sound (Apthorp et al., 2002; R. Barnhardt et al., 2000; Ongtooguk, 2002; Villegas & Prieto, 2006; Yazzie, 1999). More importantly, AI/AN communities desire their students to be good people. It is important to develop “students to be good people, or confident, capable, contributing members of their society” (Villegas & Prieto, 2006, p. 7). They want their children to be proud of their community and who they are, with a strong sense of personal identity rooted in their culture (Apthorp et al., 2002). AI/AN communities desire their students to perform well in school so that they can return to their communities and help conquer the challenges faced at home (Ongtooguk, 2002). Cultural competence is another goal, meaning that students understand their roots and traditions and be able to practice them and pass them on through generations (Villegas & Prieto, 2006). Despite limited research, several trends have been observed in regards to AI/AN education.

Trapped Between Two Worlds

The repercussions of assimilation and boarding schools still linger today. Because boarding schools weakened their cultures and marginalized AI/AN identities, Native Americans were alienated from education and actively resisted schooling (Lipka, 2002). “We have elders who experienced it, and they’ve never received an apology for this” (Ongtooguk, 2002, p. 4). There is still a sense of anger in the AI/AN community to this day that is a roadblock for success because they have no trust in education (Jacobs & Reyhner, 2002).

“Peer pressure to conform to mainstream schools’ norms causes many AI/AN students to adopt assimilationist values in schools, especially for those students who attend public schools” (Pewewardy, 2002, p. 42). The alternative to this approach is the rejection of school because students feel they must choose a side: one that views them negatively (schools), or their own cultural group (Delpit, 2006). This dismissal of school can lead to all of the social problems currently affecting the quality of life of AI/AN, such as alcoholism, drug abuse, domestic abuse, child neglect, substandard house, violence, low self-esteem, negative identity, poor health, poverty, depression, and unemployment (Clarke, 2002; Ongtooguk, 2002; Tippeconnic, 2003).

This cultural incongruity between AI/AN home life and school life negatively affects AI/AN students. This tension takes a toll on the inner, emotional lives of the students. AI/AN students face racism and threats that negatively impact their cultural identity (Clarke, 2002). The tension created by this incongruity eventually leads to dropping out (Clarke, 2002). Those students who do make it through the educational system and make it to college find that they are ill-prepared by their education. “Essentially, they are having to spend their college tuitions in order to obtain a high school education” (Ongtooguk, 2002, p. 4).

Several theories advocate the idea of rooting AI/AN education in AI/AN cultures to counteract this incongruity. The Cultural-Historical-Activity Theory (CHAT) states that community, linguistic and cultural continuity are rooted in the socialization of infants and young children (Demmert, 2006). Demmert (2006) states that this continuity is achieved when less competent peers interact with their more accomplished peers. Cognitive theory supports this concept, stating that new learning is greatly assisted by associating it with already existing knowledge (Demmert, 2006). The Person-Environment Fit Theory states that learning is greatly reinforced when the learning institution and the goals of the student correspond (Demmert, 2006). The Cultural Compatibility Theory is similar, stating that education is more successful when school and home culture are congruent (Demmert, 2006).

It is important for AI/AN students to know how to function in their tribe and in the greater world. They are striving “to maintain their heritage while learning to be successful in the dominant culture” (Shutiva, 2001, p. 1). A school that institutes a bilingual/bicultural approach both validates the lives of its students and provides them with the tools needed to succeed academically (Jacobs & Reyhner, 2002; Yazzie, 1999). This approach helps with success in the greater world while acknowledging the importance of the students’ cultures (Yazzie, 1999). Teachers are the link between tribe and school and aid their students in understanding the interaction between their culture and American society (Shutiva, 2001; Trujillo et al., 2002).

Bilingual/bicultural instruction combined with culturally congruent instruction has been shown to be effective. Ethnomathematics builds on what the children already know and operates in practical, everyday mathematics to improve problem-solving skills and mathematical power (Apthorp et al., 2002). Mathematics that use a hands-on approach and are based in traditional and everyday mathematics have led to significantly higher scores on math standardized tests (Apthorp et al., 2002; Lipka & Adams, 2004). It was also found that fourth-graders’ achievement was improved when science was rooted in culturally relevant science activities that were based in the field (Apthorp et al., 2002).

“Place-based education” is defined as combining education with the local community and the surrounding geography (Jacobs & Reyhner, 2002).
“The family, the elders, and the tribe play an important role in the teaching/learning process as related to the AI/AN student” (Pewewardy, 2002, p. 41). By including their family, AI/AN students feel a sense of belonging to the school and a connectedness to their culture (Pewewardy, 2002). Elders can help educators focus the curriculum on the cultural needs of their students. Including the students’ extended families helps to build their cultural identity and prevents a feeling of hopelessness and depression that comes when there is a disconnect between home and school (Jacobs & Reyhner, 2002; Johnston, 2004).

“The current consensus is that a student grounded in local, Native values has a solid foundation to draw on that contributes to success in school” (Villegas & Prieto, 2006, p. 7). Standards-based curriculum, necessitated under NCLB, have the potential to achieve this goal. As long as state requirements are met, states have allowed communities to develop local standards that emphasize AI/AN culture and goals into their curriculum (Faircloth & Tippeconnic, 2000). This gives AI/AN communities control in their education and allows them to dictate and define their own needs. This is very important because culture is the lens through which people view their world. “Culture and knowing are inextricably connected in all aspects of daily life” (Yazzie, 1999, p. 84).

Giving control to the AI/AN communities is not necessarily enough. A problem facing AI/AN academic success is money and leadership. The Rough Rock Experimental School in Arizona was experiencing success with its bicultural program, but inconsistent federal funding shifted the focus from a strong academic curriculum to finding funding, negatively impacting the school’s effectiveness (Apthorp et al., 2002). Because of the economic and social problems facing tribes today, most tribal governments put educational issues in the background as they focus instead on economic and political issues (Tippeconnic, 1999). Additionally, the educational issues are more than just the need for a strong curriculum because funding is needed for resources, facilities, leadership and staffing (Tippeconnic, 1999).

Language in the Classroom

Language is a powerful separator of success in the United States today. “A recent Department of Education study indicated that students who enter school from high poverty areas, including American Indian reservations, have 3,000-word English vocabularies; their affluent peers enter school with 20,000-word vocabularies” (Faircloth & Tippeconnic, 2000, p. 4). This substandard language development is the result of the high levels of stress in AI/AN students’ home lives because of factors like poverty (Demmert, 2006). Robert Kaplan coined a term, “contrastive rhetoric,” which states that different languages have different ways of organizing ideas (Delpit, 2006). This means that educators have to work with AI/AN students to understand how to operate within two intellectual frameworks, but too often this is not the case (Manuelito, 2003). “Many classroom-based language development activities uncouple language and culture, depriving students of the opportunity to use language and culture in real communication” (Skinner, 1999, p. 120).

A “congruency between the school environment and the language and culture of the community is critical to the success of formal learning” (Apthorp et al., 2002, p. 16). Schools that have instituted the Both/And Approach have shown a significant increase in academic scores as well as student confidence and pride (Lipka, 2002). The criterion for this approach, according to Lipka, is that it must be a Native-controlled school using both AI/AN culture and language. In Fort Defiance, Arizona, Native students in the Both/And program mastered their own language and performed well on English, whereas AI/AN students in an English Only program performed poorly at their own language as well as in English (Lipka, 2002). Similar results were shown with Inuit students in Alaska. When they were in a Both/And program, they had a more complex mastery of Inuitut and steadily improved in English; they also showed increased self-esteem (Lipka, 2002).

An effective teacher will understand and utilize the language styles of his AI/AN students. “Native American children … come from communities with very sophisticated knowledge about storytelling, and a special way of saying a great deal with a few words” (Delpit, 2006, p. 57). AI/AN culture is rooted in oral traditions and has speech patterns that are different from European ways. Research shows that “in brief, the Native Americans usually expect to take long speech turns, and once getting the floor they expect not to be interrupted until all their points are made” (Delpit, 2006, p. 146).

The oral tradition of AI/AN cultures makes reading a difficult process because it is a foreign concept. It is very important to familiarize students with the written word (Sherman, 2003). Many reading programs and standardized tests ignore the different English dialects and AI/AN languages from which students are coming and assume a basic understanding of English sounds (Reyhner, 2001). A focus on phonics eventually leads to poor readers who know the sounds and not the meanings (Reyhner, 2001). This problem is exacerbated when in the 3rd grade the focus on reading comprehension
replaces a focus on learning to read (Reyhner, 2001). Thus, those who are struggling with reading fall further and further behind.

Packaged reading programs, such as the Language Experience Approach and the Whole Language Approach, have some success with literacy improvement, but their results are not usually reflected in standardized tests (Reyhner, 2001). The Language Experience Approach consists of the teacher keeping a log of words used by the students. These words are then the baseline for all phonics, vocabulary, and grammar activities. The strength of this program is that it uses words/sounds that the students actually know and that have personal meaning. The Whole Language Approach focuses on meeting student interests by allowing them to create their own themes. An emphasis is placed on pronunciation, comprehension, and critical thinking, and the reading strategies are culturally contextualized. Research with Navajo students found this approach led to near-perfect English with little oral or text-based comprehension (Reyhner, 2001).

Instructional Conversation (IC) is another method for increased academic achievement for AI/AN students. “The IC is a dialog between teacher and learner in which prior knowledge and experiences are woven together with new material to build higher understanding” (Tharp & Yamauchi, 2000, p. 33). IC is very effective, especially when the visual/holistic tendencies of AI/AN students are considered because they connect academic concepts to the students’ real life (Tharp & Yamauchi, 2000). IC is specifically effective with AI/AN students and a few other groups because of specific cultural factors, such as wait time in conversation (Tharp & Yamauchi, 2000). Native classrooms that are mostly spent in individual or small group activities that emphasize extended wait time saw an increase in the length of student responses, student-to-student interaction, and overall verbal responses (Tharp & Yamauchi, 2000).

The How and Why of Learning

AI/AN students in general have a much different approach to learning than mainstream students in the United States. Unlike linear/hierarchical learners, AI/AN students tend to learn in a more holistic, global way (Pewewardy, 2002; Tharp & Yamauchi, 2000; Villegas & Prieto, 2006). This means that they have difficulty separating the individual parts of a subject from its whole. Additionally, AI/AN tend to be visual learners, meaning they learn best by observing first and then attempting the task (Pewewardy, 2002). AI/AN students “spend much more time watching and listening and less time talking than do White students” (Pewewardy, 2002, p. 37). This reflectivity drives the way these students learn. This time is spent both observing and reflecting all possibilities before settling on an answer, which increases accuracy in problem conceptualization (Pewewardy, 2002; Shutiva, 2001).

A holistic approach to education combines several aspects of teaching into a lesson rather than the traditional Western approach of separating learning into distinct subjects. In terms of writing, this approach combines factors like listening, speaking, and reading to the writing process (Apthorp et al., 2002). The opportunity to share personally relevant information provides the motivation to write, not merely the isolated process of writing (Apthorp et al., 2002). Complementing this holistic approach with strategies that will improve the skills in the Western style of writing has been shown to be effective (Apthorp et al., 2002).

There are several other factors that influence AI/AN learning. Virtues such as courage and generosity provide meaning for education (Shutiva, 2001). An emphasis on spirituality and reciprocity and also an emphasis on community, group cohesiveness, cooperation, sharing, coexistence with nature and AI/AN wisdom influence learning as well (Jacobs & Reyhner, 2002; Shutiva, 2001). AI/AN culture is much more flexible with time and tolerant of flexible and ambiguous time schedules (Pewewardy, 2002). Rules and order are important as well because there is a general attitude that “if a task cannot be done well, there is no need to engage in the activity at all” (Pewewardy, 2002, p. 38).

A lack of motivation is an obstacle to success facing AI/AN students as they exist in a world where their voice is not heard and their issues are invisible to their larger society (Delpit, 2006; Skinner, 1999). Despite research showing that AI/AN are as capable of learning as White students, they face ingrained attitudes of inferiority (NCES, 2005). Ongtooguk (2002) states that AI/AN are capable of being educated, but the problem is that educators “haven’t provided them with a [purpose] in our educational system” (p. 5). This problem is increased as outsiders blame the failures of AI/AN on the AI/AN rather than on an educational system that does not meet their needs (Pewewardy, 2002; Trujillo et al., 2002).

The ideal teachers for AI/AN students are local Native teachers. This is because they provide a positive role model, are a part of the students’ community and have a better understanding of their backgrounds and learning styles (Manuelito, 2003). “We believe that a good teacher is a good teacher, but when there is a good Native teacher, the relationship between Native student and teacher is enhanced” (Trujillo et al., 2002, p. 3). While this may be the ideal situation for AI/AN learners, the statistics show...
that AI/AN are more likely to have a non-Native teacher.

Non-Native teachers can be and have been excellent teachers for Native students. “In order for teachers to be effective with diverse students, it is crucial that they recognize their own worldviews; only then will they be able to understand the worldviews of their students” (Pewewardy, 2002, p. 45). Non-Native teachers must realize that they represent a stereotype of the oppressor when they set foot in a classroom (Constantino, 2007). It is important for teachers to acknowledge and openly discuss race, culture and racism in the classroom (Jacobs & Reyhner, 2002). In doing so, they should focus not on stereotypes but on “the dynamic lived realities of the people” of various groups (Pewewardy, 2002).

Standardized Assessments

“The logic of a single score to represent an individual’s potentiality to learn or to declare the intellectual capacity to learn is a Holy Grail in the American education profession” (Pewewardy, 2002, p. 30). The problem with this focus on standardized testing is that such scores are unreliable and have little validity because they ignore cultural diversity and show cultural bias (Fox, 1999; Tippeconnic, 2003). Additionally, it has been shown repeatedly that scores on standardized testing are highly correlated with socioeconomic status, a problem because of the high frequency of AI/AN children living in poverty (Faircloth & Tippeconnic, 2000; Fox, 1999; Pewewardy, 2002; Tippeconnic, 2003).

Standardized testing has been criticized for its focus on superficial learning and the fact that it does not accommodate for language abilities with its use of a singular method of assessment (Fox, 1999; Pewewardy, 2002; Rampe et al., 2006). Rampe et al. (2006) call for testing in both English and the student’s Native language in order to determine whether they are just not proficient in English or in fact have special needs. Fox (1999) states that standardized testing is “a good measure of one’s acculturation into mainstream society” (p. 165) and not a measure of actual ability.

The emphasis on testing brought about by NCLB is changing the face of AI/AN educators and AI/AN education. NCLB de-emphasizes AI/AN language and cultures in the classroom because it feels that these priorities will negatively impact the yearly progress of students (Demmert, 2006). The law can result in culturally appropriate teachers being replaced by teachers who do not know AI/AN languages but are content-area endorsed in subjects tested by NCLB (Demmert, 2006). Because Title IX of the NCLB defines “limited English proficient (LEP)” as AI/AN students who are below state standards in regards to both verbal and written English (Rampe et al., 2006), the result is an overrepresentation of AI/AN students in special education classrooms because “one is testing the student’s ability to translate language rather than a student’s subject area competence” (Demmert, 2006, p. 4). Essentially, NCLB is ignoring all factors that lead to AI/AN success in favor of tests and teachers that do not represent or recognize the abilities of AI/AN students.

A performance-based assessment that counteracts the testing focus of NCLB is called the Learning Record. It “summarizes evidence from a variety of student work and activities to assess student achievement in the contexts of the classroom and home” (Fox, 1999, p. 168). By focusing on achievement rubrics, educators are able to assess students on a variety of factors (Fox, 1999). This eliminates the bias that harms AI/AN cultures in education. It also improves student and parent attitudes about school and increases parental involvement and makes learning more enjoyable overall (Faircloth & Tippeconnic, 2000).

Conclusions

American Indian/Alaska Natives have had their cultures and language assaulted historically in the United States. One of the main tools of this assault was education. Boarding schools attempted to assimilate AI/AN into mainstream by removing from them all traces of their own culture. AI/AN were set up to fail at their own culture while being thrown into a mainstream culture that would marginalize them (Lipka, 2002).

The effects of this assault led to a mistrust in, and opposition to, education that continues today and acts as a hurdle when teaching AI/AN students. This mistrust has led to the poor performance of AI/AN in the world of dominant culture academics. AI/AN drop-out rates far exceed the national average, and those students who are staying in school are underachieving in all subjects and in standardized testing. This poor performance has led to an overrepresentation of AI/AN students in remedial and special education classes. Because of this marginalization in schooling, students’ future prospects will include economic stress such as poverty and social stress such as substance abuse and violence (Clarke, 2002; Ongtooguk, 2002; Tippeconnic, 2003). “Formal education has placed too many Indian students at risk of failing in both Native and mainstream American societies” (Tippeconnic, 1999, p. 34).
Legislation since the 1970s has increased activism and research towards improving AI/AN academic performance. While the research is by no means complete and impossible to generalize due to the large variety within and between tribes, some common themes have emerged. These themes are important to AI/AN communities who want their students to perform well in school and in mainstream society.

One of the most important and consistent themes the research has found is that it is vital to acknowledge and respect the cultures in which AI/AN students live. A bilingual/bicultural approach acknowledges the home lives and customs of AI/AN students (Jacobs & Reyhner, 2002; Yazzie, 1999). “Place-based education” involves incorporating the local community and local geography into the school, giving both students and families a sense of belonging to the school (Pewewardy, 2002). This allows tribes to take control of their education and emphasize standards important to them, although when tribes are given control, they must also make education a priority, which is not always the case (Tippeconnic, 1999). Family involvement and rooting schooling in students’ cultures counteracts the negative effects of schooling, such as low self-esteem, alienation, and dropping out. Acknowledging the importance of students’ cultures leads to the development of positive cultural identities (Jacobs & Reyhner, 2002; Johnston, 2004; Yazzie, 1999).

“Indian community controlled schools are the most significant education system for Indians today. They are restoring the self-image and interest in learning among Indian young people. They are lowering the drop-out rate” (Tippeconnic, 1999, p. 36).

It is essential that teachers combine Western paradigms with AI/AN worldviews. Non-Native teachers should strive to meld their style with the learning style of their students (Pewewardy, 2002). They should include AI/AN language, culture, and learning styles into the planning of their curriculum. Additionally, they should attempt to learn a few key phrases and show respect for the culture and language of their students (Jacobs & Reyhner, 2002). “Affective qualities, rather than skills or academic preparation, seem to characterize effective teachers in the research literature” (Yazzie, 1999, p. 95). These affective qualities are caring, warmness, the ability to relinquish authority, a respect for students and a more informal approach to teaching (Yazzie, 1999).

Language has served as a factor separating AI/AN from the mainstream. In addition to different oral traditions and speech patterns, AI/AN also tend to come to school with a much smaller vocabulary, which has been attributed to poverty and other high stress factors (Demmert, 2006; Fairecloth & Tippeconnic, 2000). The Both/And Approach has significantly increased academic scores, language mastery in both languages and self-esteem by allowing students to master their own language while learning English (Lipka, 2002). It is important for teachers to make every attempt to learn their students’ language styles. The Language Experience Approach consists of the teacher using a log of student-used words to lead all reading activities. The Whole Language Approach emphasizes critical thinking and comprehension and is led by student-selected themes. Despite some success, neither Language Experience or Whole Language Approach reflect well in test scores (Reyhner, 2001). During Instructional Conversation, students work mainly in small group activities that are focused towards the visual/holistic tendencies of AI/AN students. This approach has led to increased involvement in classroom discussions (Tharp & Yamauchi, 2000).

Several other factors should be considered when teaching AI/AN students. In general, they have a strong focus on cooperation and community, are more loose with time, and emphasize courage and spirituality (Jacobs & Reyhner, 2002; Pewewardy, 2002; Shutiva, 2001). In addition to ingrained attitudes of inferiority brought on by history, AI/AN often find themselves at a loss as to what is the purpose of education (Delpit, 2006; NCES, 2005; Tippeconnic, 1999). One way to give a purpose to education is provide students with a positive role model. Local AI/AN teachers are the ideal teachers because they know the students’ cultures and provide a positive role model. Non-Native teachers can be excellent teachers as well, provided they acknowledge and respect the ways of their students (Pewewardy, 2002).

The No Child Left Behind Act poses a problem for AI/AN students because the standardized tests necessitated by NCLB are not reliable or valid, are culturally biased, and ignore issues of language. These tests seem to measure not ability but acculturation, and have resulted in a disproportionate number of AI/AN in special education. A solution to this problem is the use of portfolios and other comprehensive assessments. These assessments should consider developmental, cognitive, physical, and behavioral factors as well as involve practical, real-life situations during testing (Rampe et al., 2006). Authentic, performance-based assessment eliminates language and culture biases and allows students to construct their own responses and demonstrate their abilities in real life ways (Fox, 1999; Rampe et al., 2006). One such method is called the Learning Record, which assesses by rubric a large variety of a student’s work. This eliminates culture bias in testing and increases the relevancy and
enjoyment of schooling for both parents and students (Faircloth & Tippeconnic, 2000).

The literature is full of ideas for further research, since what exists is so limited and difficult to generalize across tribes. Authors have requested further inquiry into the notion of a general indigenous theory of education, standardized testing, the disproportionate number of AI/AN students in special education, how culture affects parental response to issues like ADHD and how Native-ness affects the teaching-learning process (Apthorp et al., 2002; Hammer & Demmert, 2003; NCES, 2005; Tippeconnic & Faircloth, 2002; Villegas & Prieto, 2006). Additionally, there is a desire for an increase in the number of AI/AN, including those from different locations like urban or mainstream schools, to be included in research studies (NCES, 2005).

Recommendations for Future Practice

There are many ways for teachers of AI/AN students to help ensure that they do not become marginalized by the education system:

- Institute a bilingual/bicultural approach that validates the students’ lives and provides them with the tools to be academically successful (Jacobs & Reyhner, 2002; Yazzie, 1999).
- Make instruction culturally congruent, which means rooting it in the lives and cultures of your students (Apthorp et al., 2002).
- Use “Place-based education” – this means including students’ families and greater community in addition to the school’s surrounding to help guide curriculum (Jacobs & Reyhner, 2002; Pewewardy, 2002).
- Using the Both/And Approach allows students to become proficient at both their own language and English (Delpit, 2006).
- Be aware of the language styles of your students (Delpit, 2006).
- Use the Language Experience Approach to make learning to read relevant by using words familiar to students (Reyhner, 2001).
- Use of the Whole Language Approach allows you to use themes students have chosen and focuses on reading for comprehension (Reyhner, 2001).
- Use of Instructional Conversation is a great way to build instruction around the needs and learning styles of your students (Tharp & Yamauchi, 2000).
- Be aware of the learning tendencies of your students, such as global/holistic, visual learners, and reflectivity (Pewewardy, 2002).
- Non-Native teachers should thoroughly examine their own prejudices, recognize they represent the oppressor to their students, and be prepared to openly acknowledge issues their students face about race, culture, and racism (Constantino, 2007; Jacobs & Reyhner, 2002; Pewewardy, 2002).
- Use creative forms of assessment, such as the Learning Record, in order to accommodate for factors that hurt test performance, such as poverty, cultural bias, and language bias (Fox, 1999; Rampe et al., 2006; Tippeconnic, 2003).

Essentially, educators and schools need to think outside of the box. Rather than having an attitude that forces students to fit the school system, educators should strive to make the educational system fit their students. Having high expectations for your students and believing that they can succeed will help eliminate the attitude that some students are hopeless problems.

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The Literary Canon and the High School English Curriculum

by Zack Siegel

This paper is an examination of the literary canon and its impact on high school English curricula. It begins with a theoretical discussion and definition of the canon. Next arguments for and against canon reform are summarized, and the affects of the canon in the classroom are analyzed. The paper concludes that a compromise between traditional literary study and diversification is the best course of action, and offers suggestions for English teachers interested in pursuing change in their classrooms.

Introduction

There is considerable current debate over what should be included in public school reading curriculums. On the one hand, those in favor of preserving a traditional literary selection argue that the canon contains literature of exceptional quality, and the failure to engage such literature depreciates the value of education (e.g. Bennett, 1984; A. Bloom, 1987). On the other hand, advocates of expanding the spectrum of what is read in schools suggest that curriculum reform will provide a more enriching literary experience that more accurately represents the many cultures that have contributed to both American and world literature (e.g. Greenbaum, 1994; Jay, 1995). Regardless of the outcome of this dispute, our students will ultimately be affected by our decision for better or for worse; therefore it is worth examining the literary paradigms driving each faction.

In order to discuss reading curriculums in regards to the canon, this paper will first place current debate over the literature read in high school English classes within a theoretical framework by establishing a contextual definition of the term canon. Next, the major arguments of those in favor of retaining the canon and those in favor of expansion will be summarized. Lastly, the paper will look at how these theoretical revisions to the canon might be used in practice.

Although this paper attempts to create an accurate concept of the breadth of contributions to the debate on high school reading curriculums, material was selected to best present a wide scope of ideas. The vast quantity of literary theory on the issue of the canon far exceeds the capacity of this paper. Consequentially, veterans of literary theory may find the discussion simplistic. Inversely, teachers looking for utilitarian advice may find it rather obtuse. However, since neither aspect can be separated from the other, it is critical to remain fair to both domains.

Defining the Canon

The origins of the term canon are in authority and control: Joseph Kronick (2001) notes that the initial meaning carried by the Greek word *kanón* was a “right measure,” anything that could be used as a standard unit in architecture (p. 41). Over time, the term canon developed to encompass ethics and justice (Kronick, 2001), expanding the application of standardization to a metaphysical domain. This historical use of canon has created the framework in which the modern literary canon exists: it is an authoritative mechanism that places value upon certain literature; however there is significant dispute over the teleology of the canon and its contents.

If the presence of a canon is indicative of an evaluative system, the nature in which a canon is created must be considered. In the seminal work *Cultural Literacy*, E.D. Hirsch (1988) explains the development of the American canon as if it were Darwinian evolution: Through a series of historical accidents, certain authors, works, and other miscellany have become integral pieces of the culture of the United States. An understanding of the canon is necessary to understand society because it has organically come to represent those values that are transcendentally American. On the other hand, Terry Eagleton rejects the notion that the canon is representative of anything universal. In *Literary Theory*, Eagleton (1983) suggests that the “‘great literature’ of the ‘national literature’ has to be recognized as a construct” (p. 10). Any canon has deliberately crafted to serve the hegemonic interests of its creator, and it is therefore unreasonable to ascribe timelessness to an intrinsically arbitrary entity.

A lack of universality does not preclude the existence of canons. John Guillory (1993) suggests that canonicity is not found in the texts themselves, but rather through being taught. Guillory’s interpretation ascribes considerable formative power to the university: As the model of culture, academia is charged with legitimizing knowledge. If the literary canon is defined at the university, it is possible that the arbitrariness described by Eagleton...
is actually meticulously selected to preserve an image of timelessness and a specific social purpose. From academia, Harold Bloom (1994) attempts to refute critics such as Eagleton and Guillory by isolating the specific traits that allow certain authors into the canon. Through analysis of canonic authors such as Shakespeare and Goethe, Bloom (1994) concludes that canon is indicative of an “authentic aesthetic power” (p. 40). Rather than perpetuate social interests, the canon demonstrates a representative self, the creative heritage of Western civilization.

These differing perspectives on the nature of the canon provide a general image of the controversy: Either one accepts the innate worth of the existing canon or one views the canon as a social construction. Interestingly, and perhaps strengthening the argument of its critics, the canon is often expressed in the form of a list (H. Bloom, 1994; Hirsch, 1988). Yet to dismiss the canon on theoretical grounds alone would be to deny its commanding presence in the literature curriculums in public schools. Arthur Applebee’s analysis of the results of a survey that asked the English department chairs of 488 schools to list the book length texts read in grades nine through twelve generated a list of ten most frequently read books that matched Harold Bloom’s own canon in seven cases (Applebee, 1992; H. Bloom, 1994). Additionally, the list contains four plays written by William Shakespeare without whom, Bloom (1994, p. 40) declares, there would be no canon. Whichever construct of the canon one uses, the reading content in public schools reflects a canon-like structure similar to the one Bloom describes: Certain texts are used, and certain texts are excluded from use in public instruction. In turn, critics claim that the selection process fails to adequately represent minority and female voices, creating a biased image of American culture. Debate continues at present over whether or not the canon is an optimal guide for shaping literature curriculums.

### Preserving the Canon

Advocates of the canon stress both its intrinsic universal value and the social necessity to expose the student to its virtues. Hirsch (1988) asserts that schools have an *acculturative responsibility* that is not upheld in the absence of an American canon. If teachers do not supply students with the shared national heritage found in our literature, students will be unable to enter the cultural mainstream (Hirsch, 1988, p. 18). Through forming parameters of what constitutes legitimate cultural literacy in the United States, Hirsch implicitly concedes to Eagleton’s criticism that canonization is an arbitrary social construct, yet rejects its significance. American culture is a product of a national legacy, representing itself through its own canon. The risk of denying the students the canon is a divided community, unaware of its common bonds while focusing on difference (Hirsch, 1988). Localized communities must conserve their own traditions while also conceding to the overarching national tradition.

Former Secretary of Education William Bennett offers a similar perspective as Hirsch. Drawing on a study that claimed 72% of American universities will grant a bachelor’s degree to students who do not take a single course in the country’s literature, Bennett accuses educators of abandoning the task of providing the American culture to its rightful heirs (Bennett, 1984). Bennett reacts distastefully towards what he believes is a diluted curriculum, asserting the need for the canon because it is the very foundation of our society. The role of the educator is to select subject matter of significance for the student, directing the student towards the essential American body of knowledge (Bennett, 1984). It is paramount that educators provide this crucial instruction so that students are able to inherit the country and its government. Bennett’s politicized language in discussing the canon is not unique; Allan Bloom (A. Bloom, 1987) decries attempts to alter the content of the canon, arguing that a liberal education prepares students to answer the fundamental life questions necessary to sustaining civil society. Bloom characterizes canon reformers as revolutionaries who seek to undermine the knowledge needed to sustain democracy that is provided in canonic texts. The canon and its limiting and exclusive nature are necessary for the continuance of American society. Any attempt to alter the canon’s contents must be prevented in the common interest.

Harold Bloom rejects the notion that literature can be politicized, presenting instead an idyllic vision of the canon as a means of revealing the self to the individual (H. Bloom, 1994). Canonic texts are not accepted on the basis of political messages nor do we read them because they are our heritage; rather, we choose to enjoy the canon because of the enduring quality of the text (H. Bloom, 1994). Criticism, as Bloom interprets it, amounts to a desire to join the greatness of the writing in the canon (H. Bloom, 1994). The canon is not finite and closed, but must remain exclusive as a means of self-preservation. Without selectivity, it would cease to carry meaning. However Bloom’s position ignores the fact that since literature is taught in the public schools, the curriculum is driven by implied political motives. Arthur Applebee (1974) claims that since its conception as a subject, English teachers have endured considerable sociopolitical pressures to establish a definitive curriculum that is representative.
of all the American language and literature a citizen needs. As a result, there is a subliminal tension between literature and the mainstream values promoted by supporters of the canon (Applebee, 1974). Proponents of the canon believe that the literature read in schools takes on the role of a cultural stabilizing force. This philosophy receives considerable scrutiny from critics of the canon who argue that the choice of literature is insufficiently narrow and serves a specific political purpose that only furthers social inequalities.

Arguments for Canon Reform

The canon and its supposed tradition and value have drawn considerable criticism. Graham MacPhee (1996), for example, disputes the assumption that cultural development coexists with the development of the nation-state. Conversely, the canon is in fact misleading because it fails to acknowledge the presence of non-Western influence in the construction of the United States. The canon must be made open to change not to destroy culture, but to present a more accurate vision of the whole of culture in the United States. Culture, MacPhee (1996) argues, is in a constantly transformative state; therefore if the canon is to truly represent any given society’s values, then the canon must be shifted into the present. Ironically, MacPhee’s perspective is indicative of a canonizing process that exhibits the very democratic values thought to be at the core of the United States government. The canon should be a product of social collaboration that occurs adjacent to the canon’s constant state of growth. Joseph Kronick (2001) further develops this idea, arguing that the creation of an American canon of universal literary rules is impossible due to the ideological premise that democratic society creates equal conditions. The canon, as it stands, does not signify true democratic values, but is a product of an authority that seeks to control culture.

In contrast, Gregory Jay (1995) claims that the very notion of American literature reinforces a false belief that there are core American values. The canon reduces literature to a means of cultural and ideological control, consequently depriving students a great deal of its worth literature does have. Reading should be used as a way to expand one’s cultural boundaries, to gain visions and understandings of peoples one does not know. H. Bruce Franklin (1981) further explains the limiting nature of the canon, arguing that the historical role of literary study has been to propagandize a specific, limited world view created almost exclusively by the white male upper class. Since canonic works are representative of a mere fraction of all literature, failure to reform the literature that is taught in schools will serve to perpetuate class, race, and gender inequalities in society.

Furthermore, the canon carries the message that male white voices are the only ones of any value (Greenbaum, 1994). Without a more inclusive reading curriculum, teachers are passively contributing to this dominant ideology. Greenbaum (1994) argues that the notion of the canon speaking to the universal human implies that humanity is comprised solely of white males. Additionally, there is an abundance of critically acclaimed literary works by minority authors that can potentially be integrated into the curriculum. The reason for this absence, Anne Fairbrother (2000) claims, is institutionalized oppression that seeks to depreciate the value of multiethnic and female contributions to American culture. The notion that the canon developed by a series of accidents belies a tradition of political policies designed to preserve hegemonic race and gender relations. Multicultural literature fosters an appreciation of a “kaleidoscope of tastes, past and present” (Fairbrother, 2000, p. 15). Providing multiple literary perspectives is an inherently more enriching educational experience for all students than a canon-based curriculum.

Critics of the canon are also aware of the difficulties presented in canon reform. Bonnie Sunstein (1994) illustrates that there is conflict between the public notion of good literature and the teacher’s belief of what provides good reading experience. Oftentimes publishers of student textbooks meet the public demand, ignoring input from English teachers. Some aspects of the curriculum are placed outside the teacher’s immediate control. The teacher must then balance his or her own individual reading and cultural preferences as well as those of the students to stimulate a quality learning environment. However, the mere expansion of the literature taught in schools may not be a sufficiently equalizing measure. Leslie Fiedler (1981) argues that teaching diverse literature alongside the literary canon pacifies minority voices. By providing some access into a restricted system while still teaching the texts of the canon, schools are able to both quell the social power of alternative literary movements and fundamentally preserve the canonic tradition.

Not all participants in reforming the canon adopt a vision of forming an egalitarian society. Christopher Clausen (1997) offers complete compromise, stating that both Western and non-Western works each have literary merit and enduring qualities, therefore each should be included in the canon. Clausen’s proposal is difficult for either side to accept because “the speech against the canon…is
inspired by the wish to be free of tradition, of history” (Turner, 1990, p. 236). The essence of reform is to detach from a detrimental legacy, whereas the canon exists to celebrate that same history. In fact, this literary debate serves as a microcosm for the overarching issue of cultural plurality. Although the people in the United States are of an increasingly diverse demographic makeup, the historical use of English education has been the moral and ethical indoctrination of a nation (Luke, 2004). As a result, English is the language of the empowered and its literature is immortalized in the canon. Whether or not canon and reform can exist within the same theoretical construct is still at question.

In an effort to frame future debate regarding changes to the canon, Michael Benton (2000) issues several propositions for educators to consider. Among these proposals, Benton suggests that the traditional canon is not innately oppressive and unalterable nor is a multicultural canon innately tolerant. Additionally, changes in the function of English in modern society mandate that the “inevitability of the canon cannot be taken for granted” (Benton, 2000, p. 273). Instead of focusing attention on the specific content taught in the English classroom as a means of ideological formation, teachers should concern themselves with utilizing literary instruction to serve students’ contemporary needs. The canon is not timeless, but the future is imminent.

**Canon and Reform in the Classroom**

Eventually the discussion of the canon must bridge from theory into practice. Within educational psychology, it is generally accepted that reading stimulates cognitive activity, however a three year study conducted by Stanton Wortham (1995) sought to elucidate the relational processes that are developed in great books classes. Teachers were instructed to use a methodology where they would stimulate discussion by asking for examples from students’ own experience in order to relate to the text. Though an effective device for initially engaging in the discussion, Wortham (1995) observed that when the examples involved participants (members of the class, teacher or student), approximately a third of all provided examples throughout the study, students exhibited a tendency to focus on the example, not wishing to return to the subject matter. Wortham (1995) further noted that when students discussed participant examples, their conversational behavior would mirror the text. Whether or not educators should welcome teaching the canon in this manner is questionable. On the one hand, if the great books represent desirable character traits to develop in students, literature can act as a powerful behavior model. On the other hand, the presence of biased literature risks shaping minority student identities into those represented by their subjugated literary position.

On the topic of identity formation, Ingrid Johnston (1997) claims that reading multicultural literature offers a unique opportunity for students to understand their own cultural reality. Rather than assimilate everyone’s experience into the same canon of literature, other subjective cultures must be recognized as unique. This acceptance of the other can additionally be applied to works by the disenfranchised working class (Christopher, 1995) and socially subordinate female voices (Tarter, 1995). In order to achieve this end, Christyl Verduyn (1996) argues that the literary regulations established by the canon must be discarded so that Western paradigms of quality writing are not forced upon the study of other literatures. Several teachers have observed that the problem with this caveat for reform is that Western students are educated to expect both the content and style of “major” Western white male writers (Johnston, 1997; Peterson, 2001; Verduyn, 1996). This preconditioning does not have to limit literary study, but can be utilized to engage students in a reading curriculum. Beverly Peterson (2001) provides a powerful case study of her opening her reading syllabus to study criticism. Peterson assumes responsibility to both philosophically justify the presence of a text and exhibit some flexibility towards student input. Students cultivate their own understanding of why certain texts are included in the canon and others are not, jumping at the chance to question the implicit authority of the syllabus.

Easing the restrictions of the canon also allows for the discovery of modern literature. Elfie Israel (1997, p. 21) believes that students need to read “accessible, worthwhile, and representative of the culture than the supposedly universal canon can even hope to be.” Modern literature deals with equally powerful human concerns as the works of the canon, but portrays them in a context that does not alienate students. Moreover, the relative newness of modern literature facilitates integrated learning because of an absence of available criticism. Student and teacher alone must accumulate all information needed to sustain a discussion of the text. From these discussions, Israel (1997) pushes his students to speculate how lessons of the text can be observed in the community and world as a whole. The literature is considered to be more representative of the culture than the supposedly universal canon can even hope to be.

Whichever approach to teaching literature one adopts, the value of reading some sort of literature is
rarely questioned. Kenneth Lindblom (2005) comments that literature is a form of social capital, that those who read are more likely to participate in government and to succeed economically. As a result, literary studies are criticized as a providence of the affluent because students with lower level reading skills are deemed unable access the same amount or depth of content as other students. Frederick Hamel and Michael Smith (1998) noted that lower-track students are frequently denied even an opportunity to study literature, concentrating heavily on remedial mechanics and grammar. Hamel and Smith (1998) then performed a study to determine whether or not first exposing lower-track students to direct instruction that explicates interpretive strategies used by more advance readers increases student textual comprehension beyond simple literal happenings. The development of these skills was aided by applying literary techniques to comic strips. Books are often regarded as foreign and distant by lower-track students (Hamel & Smith, 1998), while the use of cartoons supports their learning by providing familiarity. While respecting the limits of a two classroom case study, Hamel and Smith’s study appears to have dynamic results: Students were able to progress from literal reading to modes of higher thought such as inferences (Hamel & Smith, 1998). Lower-track students, according to Hamel and Smith, are severely underestimated. An appreciation and understanding of literature is a possibility for all students of all abilities if the teacher appropriately gauges each class encounter against his or her envisioned reading curriculum, and each student is deserving of the benefits of accessing literature.

Conclusion

The concept of canonicity is rooted in control (Kronick, 2001). Establishing a literary canon is essentially an attempt to apply a standard of rule to determine what is and is not worthwhile literature. Terry Eagleton (1983) argues that the literary canon is a social construct that reflects the rules of the culture that created the canon. Similarly, John Guillory (1993) finds that the existence of a literary canon is a product of the academic selection process. More specifically, the evolution of the canon as a social construct is a direct arm of the university. E.D. Hirsch (1988) rejects the notions of the canon as a social construct, making the claim that a natural process of cultural evolution has lead to the development of transcendentally Western values. Harold Bloom (1994) embraces the canon because it is aesthetically representative of Western culture. Theoretical arguments concerning the canon aside, its significance in public schools cannot be overlooked. Arthur Applebee (1992) observes an overwhelming presence of the literary canon within high school English classrooms.

The theoretical debate over the design of the canon corresponds to the arguments over how the canon should be used in academic settings. Advocates of canon preservation tend to view the canon as a benevolent entity. E.D. Hirsch (1988) believes that the canon is necessary for Americans to enter the cultural mainstream. Certain bodies of literature, as well as people, places, and events, are critical to understanding one’s identity as an American. William Bennett (1984) supports Hirsch’s analysis of the canon, claiming that to deny students the literary canon is to deny American culture to its rightful heirs. On the other hand, Harold Bloom (1994) rejects the political merits of the canon, insisting that the canon’s virtues rest solely in the quality of the literature. Without the exclusion of most literary works, it would be meaningless to be a part of the canon. Contrary to Bloom’s idyllic notion of literary selection, Arthur Applebee (1974) notes that there has been considerable historical pressure for English teachers to provide a definitive, canonized curriculum. Canon supporters view the establishment of a standardized literary culture as a necessary social stabilizing force, preserving the necessary American ideologies for all times.

Critics of the canon do not accept its universal worth. Graham MacPhee (1996) argues that any static body of literature is intrinsically unable to fully represent culture due to the transformative nature of any culture. Over time, the values of that culture will change, and the literature must change as well. Gregory Jay (1995) rebukes the canon, noting that many of the great books present philosophies converse to conventional American values. Additionally, although contemporary canon supporters may have good intentions behind their desire to preserve the status quo, one cannot overlook that the canon has been historically used to repress other cultures (Franklin, 1981). Retaining the canon sends the message that only White, Western European, male literary voices are of any significance (Greenbaum, 1994). Other more moderate critics suggest that both canonic and non-canonic literary works have merit, and that the most important consideration is whether or not students are being best served by the curriculum (Clausen, 1997).

Reading literature both stimulates students’ cognitive activity and helps develop positive character traits through influential texts (Wortham, 1995). The use of multicultural literature validates the very existence of other cultures, ascribing worth to their literary contributions (Johnston, 1997).
Opening the canon to student input provides a unique opportunity for students to formulate critical literary opinions (Peterson, 2001). Also, a shift from the canon allows the chance to study modern literature (Israel, 1997). Kevin Lindblom (2005) notes that literary study is frequently perceived as the domain of the affluent, but expanding the content of high school literary curriculums may allow literature to be more accessible to all students. Even lower-track students can benefit from literary discussions (Hamel & Smith, 1998). The choice to preserve or alter the canon is an issue that impacts all students.

Suggestions for Practice

In light of these arguments pertaining to the literary canon and its current presence in high school English curricula, I offer the following considerations for teachers caught within the dispute between supporters of the canon and proponents of reform to establish a more fulfilling literary experience for all students. These recommendations are an attempt to balance the perspectives covered in the review of literature.

Acknowledge the validity in studying the literary canon

Despite criticism that the canon is not representative of the universal values of human culture, but rather a social construct, the arguments posed by Bennett (1984) that declare a need for students to understand the ideological foundations of their country are not without merit. As a product of the dominant classes, the canon can expose some of the values which have lead to the development of modern culture in the United States. In order to become effective agents of reform, students must become learned in mainstream ideologies and culture. Without exploring the canon, students will be deprived of the foundational knowledgebase needed to produce legitimate criticisms of their own.

Come to terms with historical factors in canonic development

Though study of the literary canon is beneficial in this regard, it must be presented within its appropriate context – as the controlled creation of predominantly white males – otherwise its study will serve to perpetuate inequality in the classroom and in society. As Franklin (1981) observes, the canon propagandizes a limited worldview of the white male upper class, one that oppresses women, non-whites, and the working class. If teachers are to encourage positive social change, we must bring awareness to the historical repression of other peoples’ literary voices that occurs, in part, through the existence of the canon.

Validate diverse literary and cultural contributions

Our literature and history are oftentimes taught with disregard for the numerous worthwhile contributions made outside the cultural canon. Greenbaum (1994) explains that the illusion painted by the canon is that the only voices that matter are those of white males. This is damaging for both mainstream and oppressed students. The former are recipients of a false perspective, the latter are treated as if their ancestry is invisible in the history of the world. Expanding the spectrum of literature more accurately depicts the diverse peoples who have influenced the evolution of the United States (Greenbaum, 1994).

Neither adding to the canon nor establishing a new canon is a suitable solution

Though useful as resources, lists that document worthy literature should not become the curriculum. Reducing the infinitely wide breadth of literature to a static reference guide creates the same sort of exclusion as a list that details the canon. The literature we teach in schools should always be open to change. As teachers, we must be receptive to teach new literature as both a means to offer new educational opportunities and to include voices that may be overlooked on any given list.

Insist on quality, challenging literature that meets student capability

Teachers should not rush to include as much literature as possible without careful consideration of the literary merit of each text. The ethnicity, gender, religion, or sexuality of the author should not be the foremost consideration in selecting literature. Rather, English teachers must actively reflect upon both the conceptual goal of literary study and whether or not the choice of text can withstand criticism from the mainstream. One does not preclude the other.

Individual effort on the part of the teacher

A frequent issue in opening the literary curriculum is that many teachers simply lack substantial knowledge of diverse literature (Applebee, 1992). As probable products of the same canonized literary curricula that currently exist, one can hardly be faulted for this unawareness. Yet in order to achieve a course of literature study that both illuminates mainstream culture and embraces the presence of other voices, this obstacle must be overcome. It is the responsibility of the well-intentioned educator to research and obtain the
knowledge necessary to implement a transformative, authentic literary curriculum, one that adequately represents our cultures.

References


Questions on Dissection:  
The Relative Merits of Real and Simulated Dissection Curricula  

by Christopher Stockmann

From science classrooms of the early 1900s to the future lesson plans of present day science teachers, animal dissection has been consistently included. The following paper presents the context in science education of various dissection activities and attempts to ascertain the most appropriate, research-based methods for future teachers. Research has found measurable improvement in learning and in student attitudes toward the learning experience when computer-based simulations are used. There is also evidence and argument for the value of using real specimens. Due to the unique educative value of each, there are benefits to students with either curriculum, yet the lack of substantial current literature supporting real dissection indicates a need for further research into this traditional activity.

Introduction

Science instruction in any sector of American secondary schools during the past century has been subject to the needs and goals of teachers, the science community and social-political entities such as the federal government. Both the arrangement of subjects and the content of their curriculum have therefore exhibited various forms (Fowler, 1964). The forms mentioned by Fowler (1964) were variable over time for two main reasons. First, there was influence of organizations which attempted to dictate the science curricula of their respective era, such as the National Science Foundation (NSF) and politicians of the 1950s and 1960s. Second, there may also be a force of generational repetition. For example, Hug (2005) proposed that in choosing dissection to convey lessons of biology, tradition is acting to influence the teacher’s choice of curriculum. In this case, the aims for science from many decades ago may be kept alive in the classroom of today because of the values, experience and attitudes of the individual science teacher and the replication of content that was a part of her own prior science education. Students may then be inadvertently receiving an arranged structure (biology followed by chemistry followed by physics, for example) and particular content (animal anatomy, for example) that originally were implemented in a very different time. For science educators to serve their students, then, it is necessary to question norms of the disciplines and determine to what aims they are tied.

This paper will examine the debate over the long-established practice of animal dissection, its ethics and efficacy as a means to learn about anatomical systems of animals. The two alternatives, real and virtual dissection, will be examined through the extant research.

When the term “real dissection” is used, the following criteria are implied: a) students are furnished animal specimens and equipment to cut apart the animal or part of an animal; b) the specimen is in a state that will allow physical manipulation and the required incision/cutting apart; c) the teacher provides a manual or similar guidance to lead the students’ manipulation and observation of specimens as a class; and d) after students have taken all they can from the experience, specimens are disposed of (Cross & Cross, 2004; NSTA, 2005).

The “virtual dissection alternatives” are described as any model, usually involving computer or video technology, which is used in place of actual dissectible specimens to accomplish the anatomy content objectives.

In the debate over dissection, the literature makes plain the facts that the practice of including the activity had grown since its start in the early 1900s and that a majority of students in biology by 1988 were practicing real dissection (Kinzie, Strauss, & Foss, 1993). Taken in combination with Hug’s (2005) idea presented earlier about educators replicating traditional content, it can be seen how development of a widespread, past educational norm may be an influence on the present classroom.

Research into the use of real dissection leads one quickly to abundant research on its competitor, simulated dissection. It is notable that the current peer-reviewed literature contains a dearth of support for a real dissection curriculum; mainly what is found are the opinions of a few teachers in support of it. There is, however, much research into the relative merits of including virtual dissection alternatives versus the traditional real dissection.

Since virtual dissection is relatively new, ranging from the early 1990s to present, the dominance of its examination in literature is to be expected. There is a further unique and interesting aspect of the dichotomy. This is the ethical aspect of the debate. The rejection of real dissection by some students has actually led to the development of legally upheld
rights of a student to determine his participation in the real dissection activity. It is not simply one curriculum tool as opposed to another when a student is able to determine the content of schooling or level of participation in this way.

As this issue continues to develop, it is ever more important to understand what the benefits of each dissection curriculum are and what learning possibilities are included in one but not the other. If real dissection, which has been a part of schooling for so many years, is to be retained, what are the specific reasons and benefits? If teachers allow the activity to be replaced, what types of learning specific to it are lost? The current research shows that educators and researchers have these questions as concerns. The questions, and their researched-based answers, are similarly of concern to those who are entering the realm of biology education as policymaker, educator, student or parent.

Review of Educational Literature

Introductorily, it can be said that the questions surrounding dissection and the educative value of dissection have existed for quite some time. There is a notable, continual relationship between the prevailing social aims for science education and the areas of science chosen and emphasized by educators. One of the most recently published voices on the subject is that of Barbara Hug. Her response to other authors’ attacks on animal dissection effectively summarized the deeper cultural context of this educational issue. She asked, “[w]hat is the value of this ritual, given today’s ways of thinking about science, schooling and learning?” (Hug, 2005, p. 603). To explore the development of thought and opinion and the findings of research surrounding this practice, a preliminary survey of the larger context of this debate will be helpful. Next, the growth of the practice will be described, in attempts to define some details. Finally, it will be possible to compare the merits of this practice and those of alternative practices with regard to learning objectives.

Context in Science Education

The first step to research the merits of animal dissection is to expand the focus. Acquiring an understanding of changes in the professed goals of science teachers, specifically at the high school level, is a challenge. Historically, the variety of approaches in the biology field has fluctuated between rigorous, college level standards and milder standards aimed at tying scientific knowledge to everyday life and decisions (Fowler, 1964). Following the establishment of the National Science Foundation, in the 1960s the Biological Sciences Curriculum Study (BSCS) was formed. The BSCS also reported these curricular shifts in direction, accompanied at times by the influence or blame from society at large (Hurd, 1961). At its inception, the BSCS was looking to the past in order to steer future instructional objectives and avert presumed problems and shortcomings of the present time. The problems described included that of curriculum consisting of “inert” knowledge as opposed to developing knowledge and an inability to adapt in order to keep students able to understand the innovations simultaneously occurring in the professional field of biology (Hurd, 1961).

A thirty-year jump forward in time finds the general aim of science transformed yet again. Now, national standards seem to point more to students developing scientific literacy and knowledge and understanding of scientific phenomena (NRC, 1996). Also, an emphasis on scientific inquiry is stressed. The National Science Education Standards are now envisioned as a “complete set of outcomes” rather than a prescribed curriculum (NRC, 1996, p. 103). It has been suggested that such a changing emphasis basically removes a need for the specific requirement of dissection curriculum (Madrazo, 2002). These standards were also mentioned by Hug. Her wording, “[f]urthermore, we now believe that students best learn through an inquiry-oriented, hands-on teaching and learning in rather than about science” (Hug, 2005, p. 603) identified the adjective “hands-on,” which seems to be omitted from other literature. Furthermore, animal dissection, as a manual lab activity, does not necessarily satisfy what the standards call for. The applicability of dissection to the current educational aims is questionable. Still, the definition of the context and aims for dissection curricula, as presented in literature, is somewhat unclear. Conversely, the definition of the practice of dissection is well documented.

The Historical Background of Dissection

Dissection, for the purposes of scientific education, is characterized by using dead animals to gain knowledge of the internal structure of each animal dissected (De Villiers & Monk, 2005). Historically, the scope of animals dissected was not limited to non-human animals, nor to fully developed animals, and Galen and Aristotle are indicated as some of the earliest important examples of practitioners (De Villiers & Monk, 2005; Shackelford, 2002). Shackelford (2002) attributed the term “dissection” as a synonym of “anatomy” meaning “cutting apart” in Greek (p. 168). As part of the story of how modern science developed, in the period from 1300-1600 A.D., two classes in Europe existed with differing views on dissection and such mechanical endeavors as surgery, surveying and
crafting of nautical and musical instruments (Zisel, 2000). Craftsmen (or artisans) were known to practice dissection, while rationally trained scholars “despised” such “mechanical arts,” according to Zisel (2000, p. 935). Apparently, it was not until the prejudice against manual labor held by the scholarly class changed (around 1600 A.D.), and rational methods enveloped the artisans’ practices, that the field of science as we know it came to be (Zisel, 2000).

Moving ahead to the 1900s, it is written that animals were dissected in American biology classrooms in the early years of that century. There is evidence of suppliers of frogs dating to the 1910s and the first inclusion of frog dissection in an American biology textbook took place in 1921. Additionally, the specific use of frog dissection was popularized by the BSCS in the 1960s (Kinzie et al., 1993) and reached peak usage in 1988 when at least 75 percent of students in biology practiced the dissection of a frog (Kinzie et al., 1993). De Villiers and Monk (2005) referred to this widespread practice as biology education within the context of mass education—its major part of the context of the century.

Despite the acceleration and acceptance just described, from the 1980s on, legal limitation and oppositional arguments have contributed to a decline in the practice of dissection. Madrazo (2002) indicated seven states with laws requiring the opportunity for students to choose not to dissect a dead animal and the same is recorded elsewhere (De Villiers & Monk, 2005). One fairly indicative marker of the current state of how educators’ use of dissection is currently perceived is the position statement of the National Science Teachers Association (NSTA), which plainly opposes legislation or regulations that would interfere with the educator’s right to make decisions or students’ opportunity to learn from dissection of a real animal (2005).

Proposed Merits of Animal Dissection

Several writers of educational literature explore the merits of including dissection in the curriculum. One benefit of using dissection curriculum is its direct approach to learning the anatomy and form of various animals, which fosters development of visual-spatial cognitive aptitude. Akpan (2001) wrote of the link between learners’ dissection lab experiences and this development. DeVilliers and Monk (2005) also cited research which “noted that activities such as handling, rotating, manipulating and envisioning objects during dissection” (p. 590) contributes to development of visual-spatial perception, and Akpan (2001) further finds a connection between success as a science major and high visual-spatial cognitive aptitude. Further, animal dissection serves as an indicator of students’ future professional aptitudes in health or science professions. Solot and Arluke (1997) found a correlation between those students who look forward to these future careers and those who looked forward to the classroom activity. Confronting this function of the dissection experience is positively anticipated by students who have a medical goal in mind. It exists as a part of the total package of secondary science schooling which Solot and Arluke (1997) call “a major filter into science-related careers … strengthening some students’ interest and quelling others’ [interest]” (p. 28).

There are merits presented in the literature of a more abstract nature. For instance, Allchin (2005) wrote of the unique effects real animal experiences can have particularly in enabling learning of human self concept. Allchin (2005) proposed that the use of another animal is the only way for a teacher to provide a lesson of biology which he, an educator himself, considers fundamental. It requires emotional engagement, the confrontation of death and the opening of the “box” of a body to address the subject of “our very biological being” while simultaneously teaching respect for life (Allchin, 2005, p. 371). Other unique merits of the use of animal dissection in biology classes are identified by Allchin (2005), such as the opportunity for exploration of paths within the biological system of the animal, and the extra degree of detail contained within the body of an animal (which he conclude is not sufficiently reproduced in text or alternatives). Allchin (2005) referred mostly to his own experiences as a biologist and educator. His position is not solitary, but part of a larger consensus on the merits of an educational experience with animal dissection that contributes to learning respect for life and sensitivity to other organisms (Akpan, 2001; Allchin, 2005).

The authors of the book Secondary Science Instruction: An Integrated Approach included dissection in their text that primarily consists of recommendations for changes in traditional science teaching. The inclusion indicates that this practice has value, although it is traditional. In the book there is the indication that science educators worry about diminishing quality of classes due to the trend of regulation, and a new approach is proposed—new in that it seeks to include dissection as an option for independent student work for those who bring interest to the school setting (Farmer, Farrell, & Lehman, 1991). This fits with the guidelines of the inquiry-based approach to content and the current recommendation for educators to respect student choice (NRC, 1996; NSTA, 2005).
Choosing Against Using Animals

Educational literature contains representations of the ideology of animal rights groups, parents and others that does not support the sacrifice of animal life to obtain the subjects of animal dissection labs. An interesting addition to the discussion coming from research into children’s ideas pointed out the varied degree to which children at various developmental stages may or may not be able to correctly identify things that are alive or not alive (Driver, Squires, Rushworth, & Wood-Robinson, 1994). The research considered differences in the children’s preparatory level of biology instruction as well as age. The topic raises questions as to when a child will be capable of choosing whether or not to participate in dissection and when adults will more likely determine what happens. Orlans (widely cited as writing against dissection) addressed the topic of student refusal of dissection activities in The Human Use of Animals (1998) with a discussion of the California legal precedence to provide students rights to not participate on ethical grounds (Orlans, Beauchamp, Dresser, Morton, & Gluck, 1998). A later state law ensured that college admission requirements in California would not include animal dissection background and other states have followed with restrictive legislation of some kind. There is evidence of either a refutation of the claimed educational merits of using animals to learn or a prioritizing by individuals of the rights of animals over student experiences (Langley, 1991). Additionally, biology teachers have the option of choosing different content that still offers students significant interaction with animals.

Petto and Russell (2003) emphasized this option. It is the idea of humane education, which involves preferably living animals in a multi-modal learning environment, where the scope of investigation is widened and respect for life is encouraged by study of live animals, and reserves the option for dissection activities for learners who prefer expository instruction. In a guide for educators created by the Humane Society of America, a variety of recommendations were given. Some of the anti-dissection recommendations include: a) hands-on exercises should be pursued that do not take animal lives; b) students should be made aware of the link between animal cruelty and interpersonal violence; and c) “animal dissections should be eliminated from pre-college curriculum” (Balcombe, 2003, p. 295). Other recommendations mention that good-quality dissection is time intensive and the choice of including it requires time that could be used in other ways (Balcombe, 2003).

The Use of Virtual Dissection

Readily apparent upon review of current literature on biology education is that development of digital alternatives is a major trend. Whether because of assumed extended opportunities to present information, as attested to by multiple authors (Akpan, 2001; Cross & Cross, 2004; Dev & Walker, 1999; Fabian, 2004; Manner, 2003) or due to attempts to assist students simultaneously pursuing real dissection, the research has indicated improvement of testable outcomes of student learning (Kinzie et al., 1993). The Kinzie et al. (1993) study was a groundbreaking investigation that indicated videodisc technology was an equally educative option and an effective preparation. Other developments have shown that teachers and students find simulation options just as useful to learning (Franklin, Peat, & Lewis, 2002). Much of the research into classroom environments employing software or other models of animal specimens (such as artificial or plastinated real specimens-those that are preserved with hardening chemicals and are not dissectible) is focused on attitudes students have about either real or virtual options, and the virtual options are more likely to be met with more positive attitudes (Douglass & Glover, 2003; Downie & Meadows, 1995; Maloney, 2005; Predavec, 2001). It should be mentioned (as was mentioned by the authors) that the literature from Douglass and Glover (2003), which presents the merits of teachers using specimens prepared by plastination, is based on research partially funded by Dow Corning, a possible influence for bias. Franklin et al. (2002) and Cross (2004) found no significant difference in either tested achievement or student attitudes when the method changed from using simulations to using animal dissection.

One difference mentioned in literature between virtual and real dissections is that, with internet access, some software can be obtained free of charge (Madrazo, 2002). In literature on an experimental study of an all-female parochial school’s use of virtual fetal pig dissection, the lower cost of virtual dissection was indicated, and the researcher concluded that students using virtual dissection “scored significantly higher on ... practical and objective tests” (Maloney, 2005). Manner (2003) wrote that the use of technology acquaints students with the modern role of the scientists and allows for easy integration from dissection subject areas to related scientific fields when technology use supports this expansion. The literature compiled by Akpan (2001) also indicated that the experience of interaction with technology is of benefit to student learning in a collateral way (in addition to the content understood), providing experiences not possible in
real life and not achieved through traditional lab dissection.

The growing trend of animal advocacy contributes to an increased development of educational software. As the software becomes more prevalent, there is more availability of virtual options and corresponding choice for teachers and students from among virtual options (Fleishmann, 2003).

In Restructuring Science Education, Duschl (1990) presented a framework for a life science curriculum that was not bound to the traditional characteristics of defined factual content and separation of disciplines. Rather, he called for a curriculum that had its central theme in the way each field of science works, often in conjunction with the others, around the idea of theory (Duschl, 1990). It will be useful to consider how change of one traditional portion of life science may be part of a greater shift in the future of biology education.

Conclusion

Between the 1910s and the 1980s, the numbers of animal dissections performed by American science students accelerated first to a mainstream educational standard and later to a peak of 75% of the total number of students performing dissections, yet the activity’s educational merits are not clearly substantiated (Kinzie, Strauss, & Foss, 1993). It seems that, in light of changing scientific standards and aims, perhaps Duschl (1990) was ahead of his time, and that, as advocates of technology have suggested, the opportunity to examine and employ integrative scientific inquiry is now more available to educators due to the last fifteen years of computer-based development (Akpan, 2001).

A summative point from this examination of current literature is the growing influence of the student on science curriculum. Due either to student refusal of animal dissection or to the educational community’s interest in effects of instructional choices on students’ attitudes, the student in this case is increasingly able to bring about new developments. The scrutiny of the traditional real dissection, in combination with the new technological developments, perpetuate greater availability of choice (and debate) for students and those attempting to most effectively teach them lessons of anatomy (Fleishmann, 2003).

The main reason for undertaking a review of the available literature was to determine the research base for the use of any dissection curriculum. The result can be summarized as follows: a research based body of literature that both explains the goals and outcomes of real dissection and refers to research is largely absent from both journal sources and book sources; literature that tests the efficacy of instruction using real dissection, simulations of dissection or both has been available from the early 1990s until present and indicates varying results.

The following additional facets of the dissection issue are present in the available literature, and make up the majority of what is available to inform educators. They include arguments and reasoning of teachers who favor real dissection and state the unique benefits of its use (this is exemplified in Allchin’s (2005) article “Hands Off” Dissection?), reference to the debate over real dissection’s ethical implications and simulated dissection’s suitability as an alternative, as well as the question of what the curricula’s place in larger science context is and has been for this particular learning activity.

Secondary dissection curriculum, part of American education for quite some time, may be becoming a thing of the past. This is the peripheral conclusion that follows from analysis of the literature. Neither real dissection nor dissection simulations are current topics in books. This is surprising. Furthermore, most of the books that address high school level or middle school level dissection solely are many decades old, written before the existence of the current technology that allows for dissection simulations.

As these dissection curricula (real dissection or simulated) receive relatively little attention in the educational books being published, a new question of how they will come to be taught in the future arises. Teachers value it as an educational tool only because of their own experiences as students, and continue to use it due to tradition more than the support of research; critical students in such cases are left with an unanswered question of “why?” (Hug, 2005). Finally, the practice is not well aligned with the science standards currently in place (NRC, 1996).

However, journals publish literature on both dissection types regularly, and the practice certainly receives different levels of usage in secondary public education and post-secondary education. For science educators at the secondary level, though, now is an interesting time—a possible turning point in the realm of dissection. Additional studies of the efficacy of each type are needed. Reliable information describing the reasons to do real dissection is needed as well, if such reasons exist. The changes in coming years will show how American education in biology, and in sciences overall, continues to evolve and either retains or does away with this traditional part of schooling.
Recommendations for Practice

The recommendations stemming from this educational research for teaching in the field of life science may be regarded as belonging to one of two sets: recommendations for use of animals in dissection activities and recommendations for alternatives to dissection. However, it has also been shown by research that the use of technological simulation in conjunction with real dissection activities enhances the performance of students on assessments (Akpan, 2001; Fabian, 2004; Maloney, 2005). In this case, there is a strong message from educational literature that the inclusion of both teaching methods is appropriate.

In regard to real-animal dissection activities, the main recommendations focus on: the teacher capitalizing on the lesson of respect for life, not simply anatomy, and the teacher devoting sufficient time to the activity. There are further recommendations dealing with real dissection activities. These are:

- Consider the use of plastinated animal tissues. These are real preserved specimens for handling and observation that can be retained (but not cut apart). They have been shown to be more acceptable to more students.
- Offer the activity as an area of individual study. A structured class that enables students to choose projects may prove to be a useful way to include dissection.
- Be mindful of the ethical positions of students and, in some states, the legally upheld rights of students to opt out of real dissection.
- Be mindful also of the position of students’ parents. While parents could in some instances be ethically opposed to their child’s participation in dissection, it also may be the case that parents wish to make the choice for their child and overrule student choice.
- Plan for a substantial amount of time to lead a whole class activity in dissection, ensuring that the topic of the ethics of animal use in learning is allowed sufficient class time. Also plan to address the needs of students with moral opposition.
- Be very clear in your own personal beliefs of the appropriateness of animal use to teach about life and the respect biologists must have for life; be able to explain some of the unique learning opportunities that are present in the activity.
- Be mindful of the fact that dissection activities may be personally important to some students with regard to their future aspirations.
- Be sensitive to the students’ attitudes in this case and acknowledge that the activity may be a personal test or rite of passage.

When considering the use of animal simulations in place of real dissection, there are researched-based indicators backing up the teacher’s choice of technology. It is certainly not the same as real animals. While this is an important consideration, the tested learning outcomes of choosing simulations are equal to, if not better than, those of real dissection and the added benefit of using technology provides a second area for student learning. Some recommendations relating to simulated dissection are:

- Beware of students trivializing the activity as if animal systems intended as the source of learning were allowed to be reduced to the level of a computer game.
- Make clear that the intent of this study is to build respect for life; take advantage of the opportunity to explain why the alternative in use was preferred over the use of real organisms.
- Be sure to know the strengths of available alternatives. It is likely that some skepticism of the software as a valid alternative will come up. Alternatives available are suitable replacements.
- Take advantage of the possibilities available with the use of computer applications to link specific learning of animal systems and anatomy to other branches of biology as well as other disciplines such as ecology (Dev & Walker, 1999). The virtual dissection experience can be part of a set of technologically-based learning and modeling experiences.
- Recognize that the use of technology is an additional skill to be mastered by students while they are learning the biological subject matter (Akpan, 2001). Give consideration and credit to the work and learning of students in this area.

The overall recommendation for the teacher deciding what type of activity, if any, to devote time to for the learning of animal systems and anatomy is to determine how best to encourage the efforts of the
students’ inquiry. The present aim of science education is not simply the observation and memorization of secluded facts about life and the natural world. Students are encouraged also to integrate knowledge and be able to use theories and the whole of the scientific process. In light of this emphasis on inquiry, it is important that teachers examine their choices and scrutinize the activities they choose so as to best address the needs and aspirations of those whom they are serving.

It is not a clear ‘this method or that’ that can be recommended in the case of dissection. Simulation with the use of current technology may be the best choice because of the possibilities to expand and the extra benefit of using software and technology. However, real dissection may be a stronger learning experience, foster a greater respect for life and prove superior for showing students the functioning of systems, but this has not been substantially shown in research. It has been found that attitudes accompanying real dissection should be considered. A future college experience with life science courses included is almost sure to involve dissection, and the future plans and aspirations of individual students deserve the respect of the science teacher. As our students all deserve individual consideration, the role that dissection curriculum plays in their education deserves attention with regard to each student’s plans.

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Dissection in Secondary Biology Classrooms: Examining Alternatives to Animal Use

by Heather Valenzuela

Dissection is a controversial topic in schools today and strong beliefs are often involved. Many alternatives to dissection now exist. Studies evaluating the educational value of actual dissection versus dissection alternatives, as measured by assessment outcomes, produced mixed results. In some cases, students who performed actual dissections performed better; in other cases, students who used an alternative performed better. Thus teachers and students who feel strongly that dissection is wrong might be able to achieve the educational objectives of dissection using an alternative. Some people argue, however, that dissection is a hands-on, authentic learning experience, and that alternatives are not an adequate replacement. More evidence is needed before concluding that dissection can be completely replaced by alternatives in classrooms today.

Introduction

Dissection is a controversial topic in schools today. While in the past, dissection of preserved and/or live animal specimens was routine and relatively unquestioned, the rise of animal rights activism in more recent times has challenged the need for dissection in secondary schools. Some teachers, parents, and students object strongly to the dissection of animals and argue for alternative assignments for some, or perhaps all, students. Others argue that dissection is an authentic and effective learning experience which cannot be replaced by alternatives.

One animal rights organization is the National Anti-Vivisection Society (NAVS). Founded in 1929, its goal is to eliminate animal use in education and other fields, such as biomedical research and product testing. Vivisection is a term which can mean any surgery on a living animal, with or without anesthesia, but usually refers to dissection of or other invasive experimentation on live animals. The NAVS also strongly opposes the dissection of preserved animals common in biology classes, arguing that it is cruel to animals, which are usually killed for the purpose of dissection, and desensitizes students to animal suffering. They argue that there is a link between dissection in schools and later vivisection practices (Brelin, 1996). For the purpose of this paper, “dissection” will refer to the dissection of dead, usually preserved, specimens.

The NAVS runs a dissection hotline, which assists students who choose not to dissect. These students often face less than sympathetic reactions from teachers, which in some states are required to offer alternatives to dissection. They also run a loan program for models and other dissection alternatives, which ensures that donations are available to students and teachers free of charge (Davis, 1997). The New England branch (NEAVS) publishes a catalog of non-animal alternatives; the most recent edition contained over 400 entries (Larson, 1998). The Humane Society of the United States also published a packet containing projects designed to replace dissection in biology classrooms (De Rosa & Winiarskyj, 1990).

The National Association of Biology Teachers (NABT) issued a policy statement in 1989 recommending that teachers consider alternatives to dissection (Hurston, 1990). The National Science Teachers Association (NSTA) also issued a policy statement that, while supporting a teacher’s decision to include dissection, also recommended that teachers be sensitive of students’ choice not to dissect and provide effective alternatives when appropriate. They also called for more research into the actual validity of alternatives to dissection (NSTA, 2005).

The issue of dissection in classrooms today can be seen as a question of whether the alternatives to dissection that are currently available are sufficient to replace the traditional dissection of preserved specimens. Thus, to what extent should alternatives be used in biology classrooms? Opinions range from never to always and everywhere in between. While it is unlikely that those who feel that dissection is always wrong and those who believe extremely strongly in dissection will change their minds even faced with overwhelming evidence, many educators truly wish to find a balance between educational objectives and animal rights. They may worry that alternatives do not measure up to the authentic, hands-on learning experience of dissection, and might be unfamiliar with alternatives that were not available to them during their educational years.

Thus, while relatively few studies have been done which compare the instructional effectiveness of alternatives versus traditional dissection, examination of these studies will help us to determine if alternatives match or perhaps even exceed the educational effectiveness of dissection. This paper will focus mainly on research regarding dissection in
secondary biology classrooms, but in some cases research from undergraduate biology classes will be examined as well. Many dissection activities are similar regardless of the grade level of students, and thus alternatives to dissection used at the college level can often also be used at the secondary level. In general, alternatives to cadaver dissection in medical school and live animal labs in veterinary school will not be addressed and examples from these sources will be used only when they have direct relevance to dissection in secondary schools.

Literature Review

Dissection has been used throughout history to study human and animal anatomy (De Villiers & Monk, 2005). While human cadavers are used extensively in medical schools, as they are extremely rarely (perhaps never) used in secondary schools, this paper will focus mainly on animal dissection. The ethical concerns regarding using animals for education are different from those which arise regarding the use of humans. Humans have usually made the choice to donate their bodies to science, which is not true in the case of animals. Further complicating the issue of the use of animals in education is the fact that most animals are killed in order for their bodies to be used. (Exceptions to this rule are animals which have been scheduled for euthanasia at shelters because of overpopulation or unadoptability and fetal pigs, which are a by-product of the meat industry).

While it is nearly impossible to know exactly how long animals have been used to study anatomy, one of the first anatomists often discussed in the history of animal experimentation is Galen, who dissected both dead and live animals and described his results in texts written in the years 175-177 A.D. In the past, the dissection of live animals, called vivisection, was often performed without anesthesia. Another scientist who made discoveries about anatomy by using animals was William Harvey, who dissected live rabbits in 1621 A.D. to prove that blood circulates throughout the body. Before that time, it was thought that blood was being made constantly in the liver to replace blood used by the body. Harvey demonstrated that blood circulates by tying a string around the aorta of a rabbit’s beating heart, watching the heart fill with blood, then slicing the aorta, causing blood to spurt out in pulses. He then repeated the experiment several times with fresh rabbits (Guerrini, 2003, pp. 23-24). René Descartes (1596-1650 A.D.) was a philosopher as well as a scientist and argued that animals do not feel pain or have minds “in the normal sense.” Thus, humans can kill, eat, and experiment on animals without guilt or remorse (Orlans, Beuchamp, Dresser, Morton, & Gluck, 1998, p. 9).

The use of dissection in education, rather than almost exclusively in medical training, became popular in the early 20th century and began with frog dissection (Kinzie, Strauss, & Foss, 1993). In 1988, it was estimated that 75-80% of the 4 million U.S. Biology students dissected frogs (Orlans, 1988). In the 1980s, animal dissection was strongly challenged. In one high-profile case, a 15-year old girl from California named Jenifer Graham refused to dissect a frog on moral grounds. While her case was dismissed and a compromise suggested, the case is usually seen as a victory by dissection protesters. The proposed compromise suggested that Jenifer be tested on a frog that died of natural causes, a solution which was unfeasible due to the extreme rarity of intact specimens to be found in the wild. The case also led to the creation of a California state law that protects the right of students to refuse to dissect (Orlans, 1988).

The dissection of frogs is especially worrisome to dissection objectors because there is evidence that the species most commonly used for dissection (estimated at three million each year in 1988) is being threatened with extinction (Orlans, 1991). For this reason, Bernhart et al. (1991) recommended that the African clawed frog, raised for scientific purposes, be substituted for the wild frogs used by college students to study the nervous system. The other animals most commonly dissected in secondary schools are cats and fetal pigs (the latter is a by-product of the meat industry – pig fetuses are recovered from slaughtered pregnant sows and then preserved). Less commonly dissected are dogfish sharks, perch, rats, pigeons, salamanders, rabbits, mice, turtles, snakes, mink, foxes, bats, crayfish, grasshoppers, earthworms, clams, sea stars, squid, sea urchins, and cockroaches. One biological supply company in the U.S. was reported to sell more than 170 different animal species, including but not limited to those listed above (Balcombe, 1998). Balcombe estimated that 6 million vertebrates were dissected yearly in high schools alone, not including those animals dissected by colleges, elementary and middle schools, and invertebrates.

There are many alternatives to traditional dissection now available. These include experiments with live animals, the use of books, photographs, slides, charts, 3-dimensional models, films, and various computer simulations. There are also alternatives which reduce the number of animals dissected, for example prosection, a representative dissection performed by the teacher ahead of time, and then shown to the class in small groups or using a special projector. Another alternative, which suggests
the use of live animals, may present problems. To whom will the animals used belong? Who will care for them during the experiment? If they are to be kept at school, who will take care of them weekends, holidays, and vacations? Giving examples of animal abuse and neglect in schools, the organization People for the Ethical Treatment of Animals (PETA) advised no classroom pets as well as no dissection in schools (Cantor, 1992). There are also alternatives in which students dissect plant material, butcher shop parts, or seafood obtained from the supermarket instead of the traditional whole animals.

The argument today boils down to whether the alternatives available today are sufficient to replace dissection of preserved specimens and to what extent alternatives should be used in biology classrooms. One point of view is that dissection is always wrong and should never be included in secondary school and that all students should use an alternative, no matter how the alternative compares to actual dissection. In fact, dissection can be a negative experience for many students and can even put them off a career in science (Orlans, 1991). Thus, some feel that dissection should be reduced and replaced with alternatives whenever possible.

Another point of view is that dissection is useful under some circumstances and that alternatives used should be carefully tested to see how they measure up to actual dissection as a learning tool. A third point of view is that most students should dissect, but that true conscientious objectors should be provided an alternative. Some feel, on the other hand, that dissection is the only effective way to learn anatomy and that no student should be allowed to opt-out of dissection. While relatively few studies have been done which compare the instructional effectiveness of alternatives versus traditional dissection, examination of the studies that have been done will help us to determine if alternatives match or perhaps even exceed the educational effectiveness of dissection.

**Traditional Dissection**

Offner (1993) argued strongly in favor of the educational value of dissection. She stated the belief that no alternative can duplicate the learning experience of actual dissection, saying, “the alternative to dissection is ignorance” (p. 147). She also argued against the enactment of laws protecting a student’s right to refuse to dissect. The most common argument given in favor of traditional dissection is that, “[t]here is no better way to understand the structure and function of an organism than by directly examining the organism” (Moore, 2001, p. 137). Another argument is that the structures found within real animals exhibit variation not shown in textbooks (Morrison, 1992). Keiser and Hamm (1991) concurred that there is something fundamentally real about dissection that models and simulations will never duplicate. One example they gave was that although one author had seen pictures of the hearts of dogs with filarial worms (heartworms), he did not really understand how dangerous these parasites can be until a student actually brought in the heart of a dog that had died of the condition. Additionally, a high school Biology teacher in Australia wrote of the experiential value of dissection, arguing that if dissection is the most effective method of learning, it must be used (Wheeler, 1993).

Schrock (1990) asserted that because traditional dissection is a multisensory, authentic experience that information is retained longer with actual dissection than with alternatives. Furthermore, Cross and Cross (2004) found that students who dissected a preserved frog did significantly better on practical laboratory assessments than students using a computer program. The authors’ study continued for two years; the first year the students were assessed using only a preserved frog. This might have given the traditional dissectors an advantage over the students using the computer simulation. However, the second year an additional practical assessment was given which did use the computer simulation. On this practical, scores between virtual and actual dissection were not significantly different. Thus, the researchers asserted that the students who dissected preserved frogs could transfer the information to the virtual simulation, but not vice versa.

Kariuki and Paulson (2001) found that students who dissected preserved specimens (earthworms and frogs) scored higher on tests than students who used CD-Rom dissection simulations of the same animals. Marszalek and Lockard (1999) previously had found that students who performed conventional dissections out-performed students who used either an interactive CD tutorial or a desktop microworld, both of which were computer simulations designed to replace frog dissection. These researchers also found that students randomly assigned to perform actual dissections had lower science anxiety than those using the two simulations. They did point out, though, that the students investigated had previously been exposed to dissection activities, whereas they had little previous experience with computer simulations, which they suggested could have skewed the results.

In a study involving college students’ dissection of a fetal pig versus the simulation tutorial MacPig, Duhrkopf (1998) found that students performing the traditional dissection scored significantly higher on a practical exam than students using the alternative. While this study used college students instead of
secondary students, fetal pig projects are common in high school. Also, as the class investigated was general biology, the educational goals were probably quite similar. Duhrkopf suggested that the results of this study were educationally significant as well as statistically significant because the mean score of the traditional dissectors was 82%, while the mean score for the alternative was 41%.

Studies have also been done which examined the effect of students using both a computer simulation and an actual dissection to learn biology. Kinzie et al. (1993) found no statistical difference between students using simulation only and dissection only to learn frog anatomy. However, they found that students who used the simulation before dissecting their specimens had higher achievement than either of the other groups. The simulation used was an interactive videodisc; the students studied were high school biology students. The authors also surveyed student’s feelings towards dissection and found that there were no significant changes in students’ opinions about dissection after the dissection activities.

In a later study of seventh graders studying frogs, Akpan and Andre (1999) found that using a simulation before dissection was more useful than using the simulation after dissection, although equal time was spent on both activities. The authors found that the group that did the simulation after dissection had results no different from the group that only dissected. However, the group that did the simulation before dissecting performed significantly better. In this study, no group did the simulation only.

The previous group of studies compared traditional dissection to the alternatives and found that dissection is a more effective method of learning or that alternatives are more effective when used in conjunction with actual dissection. While these arguments would not be sufficient to convince some animal rights activists, many teachers believe strongly in the hands-on experience of dissection as a powerful learning tool. The studies which follow involve situations where alternatives to dissection have proved equal or more effective in terms of student learning than traditional dissection activities.

**Alternatives to Dissection**

Those who object to dissection argue that animals should not die in order for students to study their remains. A fact sheet that was published by The Humane Society of the United States stated, “[k]illing animals for classroom dissection causes animal suffering, cheapens the value of life, and depletes wild animal populations, yet it remains commonplace” (Balcombe, 1998, p. 2). Objectors argue for the use of alternatives that do not require the sacrifice of animals, and some studies have found that students perform the same or even better with these alternatives.

In his dissertation, Terry McCollum (1988) found that students’ achievement scores were higher when they were taught by lecture alone, compared to when they dissected a frog. His study took place at a large, urban school district which included both neighborhood and non-neighborhood (alternative) schools. As out of the 350 subjects included in his study 179 were white and 171 were not, he also investigated the interaction between instruction type and race. He found that the difference in achievement score between white students and students of color was larger with the lecture method than with traditional dissection. He hypothesized that white students score higher when lecture instruction is used, whereas minority students score the same whether lecture or dissection instruction is used.

McCollum (1988) also found that students from neighborhood schools assigned to dissection groups reported more positive beliefs about frogs than students assigned to lecture groups, but that students from non-neighborhood schools assigned to lecture groups reported more positive beliefs about frogs than students assigned to dissection groups. Although he said that non-neighborhood schools “were open to students throughout the district,” he did not mention whether minority students were distributed evenly between neighborhood and non-neighborhood schools (McCollum, 1988, p. 4). It is also important to remember that he performed his study before computer simulations and other alternatives were widely available.

In a later study of the effect of high school students’ achievement using an interactive videodisc simulation versus a conventional program dissection, Strauss and Kinzie (1994) found that there were no significant differences between the academic scores of the two groups. The researchers found, however, that while students did not have significantly different opinions of dissection before dissection activities, students who performed traditional dissections gradually came to have more positive feelings about the value of dissection, whereas students who used the simulation gradually came to have less positive feelings about dissection. This finding was based on pre-activity, post-activity, and delayed attitude surveys.

In his evaluation of “E-Rat” a computer simulation of a rat dissection, Predavec (2001) found that first-year college students using the simulation performed better than the students using the conventional dissection by an average of 7.4 percentage points. He also looked specifically at what differences were found on different types of test
questions. He found that in fact the smallest difference between dissectors and simulators was in the questions using a real rat example, the largest difference was in the questions using pictures, and that test questions reflected an intermediate difference. The finding that the students who used the simulation did better on the picture questions in particular is logical because these students would have been exposed to more two dimensional picture-like images while using the simulation. When students who used E-Rat were asked if they felt a traditional dissection would have been a better learning experience, 21% agreed or strongly agreed, 29% were undecided, and 50% disagreed or strongly disagreed.

In a study comparing the performance of students using a computer program designed to replace fetal pig dissection versus students performing the conventional fetal pig dissection, Maloney (2005) found that students using the virtual dissection scored significantly higher on assessment tests than the students actually dissecting. This study was performed at an all-girl parochial high school. The author also suggested that the results were educationally significant, as the score of students using the simulation was an average of two grade levels above the students who performed a conventional dissection.

One reason often given to include actual dissections at the high school level is that dissection prepares students who will take college Biology classes and in some cases medical school classes. Jones, Olafson, and Sutin (1978) found that in a multimedia gross anatomy program, which included movies, slide-tapes, computer-assisted instruction, and proseuction tutorials, but neither lecture nor student dissection, freshmen medical students in the experimental multimedia program learned human anatomy and performed as well on tests as those in the traditional program. While the use of proseuction indicates that the program was not entirely dissection-free, dissection was reduced by not having students perform dissections.

One chief complaint about alternatives to dissection is that many reduce three-dimensional structures to two dimensions (e.g., films, books, and computer screens). Waters, Van Meter, Perrotti, Drogo, and Cyr (2005) found the three dimensional dissection alternative of sculpting human structures in clay to be an effective way for college students to learn human anatomy. Students who molded clay with the help of manikin figures scored significantly higher when tested than students who performed the traditional cat dissection. They also found that, although there was no difference in student attitudes toward dissection of preserved animals before the project, students assigned to dissection groups considered animal use significantly more important after performing traditional dissections, whereas students assigned to the clay sculpting groups did not significantly change their opinions. When asked specifically about the value of dissection in learning the name and function of structures, the pre-project attitudes of the students were again similar. However, after dissection, groups participating rated dissection as a more valuable learning tool than they had previously, whereas the sculptors valued dissection less than they had previously indicated.

**Plastinated Specimens**

A more recent alternative available to educators is the use of plastinated animal specimens. These specimens are actual animal or human tissue which has had all the water removed, been injected with liquid silicone polymer, and cured by polymerization. In a two-year investigation, Douglass and Glover (2003) found that all high school students interviewed responded well to such specimens, 86% of students reported using them to prepare for exams, and 57% felt using the specimens improved their test scores. 75% of students said because the specimens were dry, they were more convenient to use than traditional specimens, and 50% said they worked with them longer because they did not smell and did not require gloves. However, the students all agreed that these specimens should supplement, not replace, dissection, and should be used alone only in situations where hands-on experience is not possible.

Teachers were interviewed as well. They felt that the plastinated specimens were a good visual resource, were easily available in class, and helped to encourage student interest. They also thought the specimens were useful in assessment. While it is possible to use pins in the specimens, like in traditional specimens, it could damage more delicate pieces. One teacher thought the specimens might give too much information too easily, and that the traditional dissection experience was still important. While the cost of the specimens would be a factor initially, the authors point out that the specimens are durable if treated carefully and that they can be used by many classes and at many age levels (Douglass & Glover, 2003). One thing which must be kept in mind, however, is that the specimens used in this investigation were donated, so it is possible, although by no means certain, that the authors may have felt obligated to give the specimens a “good review.”

In an investigation of plastinated specimens used in introductory biology classes at the University of North Carolina, Stuart and Henry (2002) were of the opinion that the specimens improved their biology labs greatly. They noted that plastination is often...
used in medical and veterinary schools to teach anatomy, for example as described by Baeres and Moller (2001), von Hagens, Tiedemann, and Kriz (1987), and Weiglein (1993). While Stuart and Henry explained that specimens are available from some major biological supply companies, they suggested that it might be more effective to collaborate with a medical or veterinary school; they paired with the University of Tennessee School of Veterinary Medicine. In their opinion, this increased the quality, flexibility, and selection of specimens. The authors even suggested that, since plastination is a relatively simple process, most colleges and large high schools could theoretically produce their own specimens tailor-made to particular labs.

A main benefit Stuart and Henry (2002) saw in the use of plastination was the increase in examples with which they were able to provide their students. Rather than just one lab dissection using a preserved frog as a representative of vertebrate anatomy, they used a carnivore’s digestive tract, a four-chambered ruminant stomach, the spiral valve from a shark, the cecum of a dog, a horse heart, and other specimens in labs they designed themselves. They used an investigative, problem-based approach, and felt that “more students leave the lab with a greater understanding of how their own bodies work plus the bonus of knowing that they are capable of asking and answering their own questions by using their powers of observation” (Stuart & Henry, 2002, p. 132). Also, although the specimens were originally to be used only in introductory classes, they found that since the specimens were obtained, professors have found uses for them in a variety of other courses.

**At What Age is Dissection Appropriate, if Used?**

While dissection is more common in high school than in the middle or elementary levels, students of various ages might dissect. In some cases, dissection at the middle level is common. Solot (1997) observed 6th graders dissecting fetal pigs. While he discussed extensively the socializing role of the dissection experience, as a “rite of passage,” and the positive feelings of the students toward dissection at the end of the exercise, he concluded that the potential harms outweigh the benefits for middle level students.

Solot (1997) described how, in his opinion, the students were trained to see animals as objects and that they used inappropriate humor to help themselves cope. This ranged from selecting names such “Miss Piggy” or “Wilburina,” to playing with the specimens, for example making them dance, making them seem like they were struggling against the pins holding them down, and sticking a finger into a pig’s mouth and screaming, “Ahhh! It’s eating my finger! Ahhh!” He observed that at the end of the dissection, the students mutilated their specimens, for example filling a pig stomach with water, squirting it out, laughing, and repeating the process, and stabbing tools through the head and body of a pig. Although the teacher refused to give permission for students to chop off the pigs’ heads, a few did so anyway and paraded the heads around the room. Boys teased girls with dangling organs, and one girl took pig brains into the hall to “gross out” students who chose not to participate.

One study in the UK found that more students aged 11-12 think that it is wrong to dissect dead animals than students aged 15-16 (Stanisstreet, Spofforth, & Williams, 1993). This study is unique in that it examined not only student feelings toward dissection, but also how different age groups and gender groups feel about dissection. Interestingly, there was no statistical difference found in feelings about dissection due to gender.

On the other hand, Sally Hillstrom Chambers, a seventh grade teacher, says that dissection is indeed an important “rite of passage” in her class and that, “[s]tudent excitement about it builds from year to year and is passed on from older to younger siblings.” She says that frogs are cheaper than technological alternatives, and better as well. She says that “frog parts flying around the classroom” and other behaviors can be avoided by making clear rules and expectations prior to the dissection (Chambers, 1992, p. 39).

These studies show that while some teachers believe students of all ages can benefit from dissection activities, others believe that effective dissection requires a level of maturity not found in younger children. Younger students also may be more likely to object to dissection, a logical finding given that a large portion of the reading and entertainment material to which elementary children are exposed anthropomorphizes animals.

**Is Watching Dissections Good Enough?**

Some students refuse to dissect, but do not have a moral objection to dissection in general. They may be apprehensive or a bit squeamish. Many teachers will have these students watch a partner who is willing to dissect. In some cases, these students overcome their apprehension and end up joining in the dissection activity (Offner, 1993). In a study of first-year medical students, Sandra and Ferguson (1998) found that students who did not actually dissect, but had structures shown to them by a dissecting peer performed equally well on the majority of the lab practical – 135 questions out of 150. Of the 15 questions where statistical significance was found between the two groups, non-
dissecting students did better on 6 questions and dissecting students did better on 9. These 9 tended to be the more difficult questions. While the researchers did not include a group that only dissected and did not teach peers, they suggested that the knowledge necessary to teach peers and the reinforcement provided by explaining while showing others the structures benefited the dissectors as well as the non-dissectors. While this study evaluated medical school students, rather than secondary students, 90% of the questions on the exam were anatomical identification, one of the main goals of dissection in general.

Conclusion

Despite a long history of dissection in school classrooms, many students and teachers have concerns about the use of animals in education. While the case of Jenifer Graham is the most famous, she is hardly alone. Teachers often provide alternative assignments to students who object to dissection and in some states are required to do so by law. Other teachers, though, argue that dissection is a hands-on experience which leads to greater learning and better retention. They may be reluctant to use alternatives to dissection, which they believe will not be as effective.

Examining the current literature on the alternatives to dissection, we see that studies seem at times contradictory. Duhrkopf (1998) found that students performing a traditional dissection of a fetal pig scored significantly higher on a practical exam than students using the alternative (82% versus 41%). On the other hand, Maloney (2005) found that students using a virtual fetal pig dissection scored significantly higher than the students actually dissecting (two grade levels above). The fact that the second study was performed much more recently might indicate that alternatives to dissection are improving. This conclusion is logical, as newer alternatives can improve upon previous versions and because computer technology, in particular, is rapidly advancing.

However, while McCollum (1988) found students to learn more effectively from lecture than actual frog dissection and Strauss and Kinzie (1994) found no difference between traditional frog dissection and an interactive videodisc simulation, the slightly more recent studies by Kariuki and Paulson (2001) and Marszalek and Lockard (1999) found actual frog dissection to be more effective. Kinzie et al. (1993) and Akpan and Andre (1999) presented evidence that suggests that computer simulations can be used to increase the effectiveness of the dissection experience.

There are three-dimensional alternatives to dissection other than models now available. Sculpting human structures in clay seemed to be effective for college students to learn human anatomy (Waters et al., 2005). The same method could be used to learn the anatomy of animals if teachers so wished. Also, plastination is now available. While the idea of the use of actual animal tissue, even dry and safe to touch, might worry some students and teachers, the fact that one specimen will last years will greatly reduce the number of dissections performed. Dissection supporters who argue that alternatives are not real may accept the compromise of reusable, plastinated specimens.
While there will always be people on either end of the dissection-alternative spectrum, either unwilling to accept dissection or unwilling to give it up, there are currently a great many alternatives to dissection available, as seen in Larson (1998), De Rosa & Winiarskyj (1990), and Hairston (1990). Some studies have found that alternatives to dissection provide a learning experience at least equal to actual dissection. Therefore, teachers and students who feel strongly that dissection is unacceptable can be relatively certain that their beliefs will not cause their education to suffer. Teachers and students who might not have considered using an alternative to dissection might consider it based on some positive findings. However, more evidence is needed before concluding that dissection can be totally replaced by alternatives in today’s biology classrooms.

Recommendations for Practice

Most educators agree that dissections should be well-planned, meaningful activities, not simply projects to be done “just because.” Most teachers would agree that reducing the number of dissections performed by students is a good idea, as unnecessary dissections are costly in terms of money, time, and animal lives. This can be accomplished by having students work in pairs or small groups, sharing specimens to reduce the number used. Small group work is also one of the “best practices” of teaching suggested by Daniels and Bizar (2005). Alternatives to dissection can certainly be used to reduce the number of animals used, as well as for students who object to dissection, but the teacher should carefully research the alternative(s) as studies of their effectiveness have shown mixed results. Dissection can also be reduced by not having younger students and/or introductory classes perform dissections, or by limiting the number of dissections performed by such students. Solot (1997), among others, has suggested that dissection by younger students may be of more harm to them than good.

Some argue that dissection should be limited only to advanced classes and/or students who plan to pursue careers in science, especially medicine. Other people point out that dissection is a component of science literacy to which all students should be exposed (Offner, 1993). On the other hand, Barr and Herzog (2000) found that all participants in their study of high school fetal pig dissection agreed that dissection should be optional. In addition, some said that dissection raised their interest in science and biology, and helped to convince them to enter a medical or related field, while others said it helped to convince that they did not want to follow such a path.

Teachers may decide to perform dissections of some animals but not others, depending on their personal beliefs as well as educational aims. Teachers may decide not to dissect frogs because they are collected from the wild and instead use, for example, a computer alternative. The same teacher may not object to using fetal pigs or animals from shelters because they are not killed in order for their bodies to be used. There have been investigations into companies supplying some of these animals, though. Animal activists went undercover and obtained jobs at one of the major companies in the U.S. in 1990 and photographed the abuse of animals, including cats and rats, the latter of which were embalmed alive. There was also an investigation of a Mexican biological supply company in 1994 which showed thousand of cats to have been drowned, not humanely euthanized, some of which were deter-
mined to have been pets collected from neighborhoods by people paying one dollar per cat. These cats were sent north for school dissection in the U.S. (Balcombe, 1998). Teachers should be aware of these reports and should research the supply company they will be using.

While the dissection of cats might be difficult because of students’ association with them as pets, a very large number of unwanted pets are euthanized each year in the U.S. Estimates range from 12 million pets by Cornell University, to 3-4 million (just cats and dogs) by The Humane Society of the United States. Many of these animals have been strays and are sometimes in very bad physical shape, suffering from conditions such as malnourishment. The dissection of cats obtained from animal shelters can easily have real-world connections for students and be an opportunity for the class to examine what responsible pet ownership means.

Dissection can also be an opportunity to discuss the ethical issues related to science. Rather than acting as the authority, teachers can ask their students if they think dissection is a good idea and why. Some students will argue that dissection is wrong and unnecessary, while other students might argue that dissection is the best way to learn anatomy. These discussions can easily branch into whether it is acceptable to eat animals for food, to test products, such as cosmetics, on animals, or use animals in biomedical research.

Most educators agree that students who object to dissection should be provided with an alternate assignment. Doster, Jackson, Oliver, Crockett, and Emory (1997) found that feelings about dissection are strongly linked with students’ values, morals, and often spiritual beliefs and that being forced or coerced into violating those principles can cause emotional distress. They also found, though, that many students have positive feelings about dissection stemming from natural curiosity. They reported that the students in their study found frog, turtle, and shark dissections the most useful, and earthworms, perch and grasshoppers the least useful. They also found that while some students found fetal pigs informative, there were many negative feelings associated with their dissection.

One alternative to dissection of the traditional, preserved specimens is to dissect seafood from supermarkets; there are several projects published in which students dissect squid, the edible portion of which is then prepared for students to try if they wish, often by a parent volunteer (Brown & Kisiel, 2003; McGinnis, 2001). Some scientists have found evidence, though, that cephalopods, the group of mollusks which includes squid and octopi, are highly intelligent animals. Mather (2001) argued that definitions of animal suffering should not be restricted just to vertebrates.

In conclusion, beliefs of teachers will influence their decision to include dissection activities and to what extent they will use alternatives to dissection. The very fact that dissection is controversial can lead to students examining the ethics of science in general. Many more animals die in the U.S. from experiments in biomedical research than are used in education, for example. A balanced discussion of animal use by scientists would include the history of animal and human dissection, why animals are used in experiments today, historical medical breakthroughs which came about because of animal research, such as pacemakers and many vaccines (Pringle, 1989), and the current use of animals in areas such as cancer research, as well as the arguments against the use of animals, including current alternatives. Some students might believe that animal use is justified if it saves human lives, while others might believe that it is immoral to cause animal suffering and/or death for any reason. The most important thing for teachers to consider is that student feelings regarding dissection can be very strong and that students will not benefit educationally from dissection if it is against their beliefs.

Students who object to dissection present an alternative to the tradition of objectification of animals that is often underrepresented in science and medicine. Thus, it is a shame when these students are dissuaded from pursuing a career in science or medicine because they are turned off by dissection.

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Fostering Positive Bi- and Multiracial Identity Development in Schools

by Leia Vandersnick

Since the 1967 “Loving v. Virginia” ruling by the Supreme Court, which overturned anti-miscegenation laws of Virginia, the multiracial population has been on the rise. But as the student population moves beyond traditional racial categories, the teacher population is not diversifying at an equivalent pace. While a student typically starts to form his or her racial identity during late childhood and adolescence, the perceptions and stereotypes learned in elementary school will affect how well a bi- or multiracial person will fare through this lifelong process. There are curricula approaches that teachers can use that can help to alleviate the personal conflict that multiracial students may face with traditional dominant culture-centric curriculum.

Introduction

Multiracial identification in the U.S. is on the rise. The ratio in 2000 was 1 in 40; an estimated ratio for 2050 is 1 in 5 (J. Lee & Bean, 2003; Lopez, 2003). In light of this increase, and with the continued trend of a teacher population overwhelmingly from the dominant, White culture, teachers and schools need to be aware of these children, who may or may not self-identify consistent with their phenotypical appearances, and of appropriate ways to support these students’ racial identity developments. Race is a social construct that has complicated the history of many groups in the United States, but teachers and parents can help individual multiracial children from feeling conflicted about their own identities with some sensitivity and information.

Negotiating identity is a life-long process according to Cross (1995) and Helms (1995), who have established models of Black and White monoracial identity development. Others, including Poston (1990), have developed models of biracial identity development, which is predicated on first deciding with which label to identify. Monoracial designates an individual who identifies with one of his or her races. Biracial designates a person with parents of two different racial groups. Multiracial or mixed race includes any other racial combinations including more than two races as well as mixing that occurred in generations before parents (Root & Kelley, 2003).

Identification can shift throughout a person’s life. Multiracial people are free to adjust their identifications as often as they like (Root, 1996). Tatum (2003) argues that while individuals grapple with identity development, including race, in adolescence or adulthood, important foundations are established during the early elementary years and before stereotypes are notable. Racism is an inherent part of U.S. society. Everyone must learn to survive within its stigma. Learning starts at home. Rockquemore, Laszloffy, and Noveske (2006) argue that how parents choose to direct their children’s identification group depends more on their racial ideology than their races. This choice will determine whether children start early learning about both or all of their racial heritages, or if they are guided to choose monoracial identities, such as Black identities for Black-White biracial children.

The school is usually the first large-scale social environment that a child encounters. Here, stereotypes are expanded and explored, and a child will meet other children, often more of them than he or she has ever met at a single time. Wardle (2004a) argues that teachers should help very young children explore their physical features to try to decide how to answer the age-old question: “What are you?” Banks (2001) advocates for culturally sensitive curriculum approaches. Too often, diversity lessons depend on learning about one racial or ethnic group at a time. Presenting groups in this way reinforces the boundaries between races that persist into the twenty-first century (Wardle & Cruz-Janzen, 2004).

In this paper, I argue that multiracial students need support in fostering the development of healthy racial identities, whether monoracial, biracial, or multiracial. Both family and school support systems are critical to well-balanced development. While some argue for single monoracial identity development, most of the research that is the basis of this paper supports individual choice for the racial identification that is the best fit for that multiracial person.

History

Race is a social construct based on physical characteristics (Tatum, 2003). There is no biological foundation for racial categories like Black, White, and Asian. “Race cannot be a scientific construct if it has changing boundaries mitigated by laws, history,
emotions, or politics” (Root, 1992, p. 9). Nevertheless, in the United States, race continues to pervade society, if only in an attempt to remedy the centuries of subjugation that has occurred for some segments of the population. The legacy of the one-drop rule for Blacks in the U.S. continues to influence how an entire segment of the population is judged and categorized by society, including those Blacks with mixed-race heritages (Wright, 1994). Racism is not limited to Blacks. Certain European and more non-European immigrants have been faced with prejudice and racism when arriving on this country’s shores.

Loving v. Virginia was decided in 1967, when the Supreme Court declared that the anti-miscegenation laws of Virginia violated equal protection and due process clauses of the Fourteenth Amendment (“Loving v. Virginia,” 1967). It is almost forty years later, and it is not surprising that the multiracial population has grown to nearly 2.5% of the population of the United States (Lopez, 2003). In West coast cities there is even a greater number people who self-identify as multiracial. According to Census details of the Seattle metropolitan area, 4.5% identified as multiracial in 2000 (Seattle, 2005). It is important to note that statistics on multiracial Americans are available because the Office of Management and Budget (OMB) decided in 1997 to permit Americans to select more than one racial category on census forms for the 2000 Census (Nobles, 2000).

In a study of the implications of the large multiracial population in 2000 (the numbers are incomparable to the 1990 or 1980 Censuses as multiple racial categories were not allowed or counted as such), Lee and Bean (2003; 2004) note that the rate of interracial marriage—and presumably bi- or multiracial children will follow—is not balanced across minority groups (see Table 1). The Black rate is significantly lower than the other minority groups represented—the Hawaiian and Pacific Islanders rate is nearly 45%, but even the Asian rate of 12.4% is almost three times higher than the Black rate (4.2%).

In an explanation for this discrepancy, the authors consider the geographic patterns across the country of multiracial identification. A key finding is that 64% of the people who identified as multiracial in the United States live in just ten states—California, New York, Texas, Florida, Hawaii, Illinois, New Jersey, Washington, Michigan, and Ohio (and 40% live on the West coast) (J. Lee & Bean, 2004). These states have the highest levels of the immigrant population and high racial and ethnic diversity. While states like West Virginia, which is not as racially diverse, report very little multiracial identification, a number of southern states with large Black populations—Mississippi, South Carolina, Louisiana—also have very low rates of multiracial reporting despite the racial diversity (J. Lee & Bean, 2004). Their optimistic hypothesis is that the percentage of multiracial people in the U.S. suggests that race is becoming less of an issue. But on the negative side of potential implications is that the racial divide in the U.S. could be shifting from White/Non-White to Black/Non-Black. Asians, the “model minority” (Spring, 2005, p. 415), the Irish, and the Italians (all late-nineteenth/early-twentieth century immigrants) eventually rose in status by distancing themselves from African Americans (J. Lee & Bean, 2003; 2004).

Table 1.
Multiracial Identification by Race: People Recorded as One Race Who Are Also Recorded as One or More Other Races.

<table>
<thead>
<tr>
<th>Race</th>
<th>Racial Identification (millions)</th>
<th>Multiracial Identification (millions)</th>
<th>Percent Multiracial</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>216.5</td>
<td>5.1</td>
<td>2.3%</td>
</tr>
<tr>
<td>Black</td>
<td>36.2</td>
<td>1.5</td>
<td>4.2%</td>
</tr>
<tr>
<td>Asian</td>
<td>11.7</td>
<td>1.4</td>
<td>12.4%</td>
</tr>
<tr>
<td>Other</td>
<td>18.4</td>
<td>3</td>
<td>16.4%</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>3.9</td>
<td>1.4</td>
<td>36.4%</td>
</tr>
<tr>
<td>Native Hawaiian or other Pacific Islander</td>
<td>0.7</td>
<td>0.3</td>
<td>44.8%</td>
</tr>
</tbody>
</table>

Racial Identity Formation

In forming a racial identity, an individual learns attitudes about his or her own racial group and others and “dispels the cultural conformity myth” that all members of a group have the same beliefs and behaviors (Poston, 1990, p. 152). While the racial label that an individual or family chooses is important, recently more stress has been directed to the process by which they adopt it (Rockquemore et al., 2006). Connecting a social racial label to one’s personal identity is arguably more meaningful and complicated for the biracial or multiracial person. But how does any individual come to understand his or her position in the racially stratified United States? Models of racial identity development abound.

Monoracial (Black & White)

Racial identity has long been considered crucial to the emotional well-being of individuals. A healthy and strong racial identity improves self-esteem, which is too often at risk during adolescence. Models of monoracial development include Janet Helms’s model for white identity and W. E. Cross’s model of black identity (Cross, 1995; Helms, 1995; Tatum, 2003). Both models deal with racism. According to these models, full development requires working through racism. The stages of Cross’s model are pre-encounter, encounter, immersion/emersion, internalization, and internalization-commitment (see Table 2). Collectively, it is the transition from being unaware of one’s race to embracing it.

In Helms’s White model, the stages are contact, disintegration, reintegration, pseudo-independence, immersion/emersion, and autonomy. The individual similarly starts with obliviousness to race, then moves from initial guilt about white racial status (higher) to an avoidance of the issue and possibly on to a healthy sense of self while being tolerant of other races. Both of these models progress over the lifespan. Regression or repetition of stages is entirely possible, and some people may not reach all stages. Helms notes that within the White model, it is easy for an individual to get stuck at the reintegration stage, especially if the individual avoids people of color (cited in Tatum, 1992, p. 15).

<table>
<thead>
<tr>
<th>Models of Racial Identity Formation</th>
<th>White</th>
<th>Black</th>
<th>Biracial (Poston, 1990)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact</strong></td>
<td>• Obliviousness</td>
<td>Pre-Encounter</td>
<td>Personal Identity</td>
</tr>
<tr>
<td><strong>Disintegration</strong></td>
<td>• Guilt/Shame/Discomfort in the face of racial dilemmas</td>
<td>Encounter</td>
<td>Choice of Group Categorization</td>
</tr>
<tr>
<td><strong>Reintegration</strong></td>
<td>• Idealization of one’s own group, intolerance of other groups</td>
<td>Immersion/Emersion</td>
<td>Enmeshment/Denial</td>
</tr>
<tr>
<td><strong>Pseudoindependence</strong></td>
<td>• Reshaping reality and selective perception</td>
<td>Internalization</td>
<td>Appreciation</td>
</tr>
<tr>
<td><strong>Immersion/Emersion</strong></td>
<td>• Hypervigilance &amp; reshaping</td>
<td>Internalization-Commitment</td>
<td>Integration</td>
</tr>
<tr>
<td><strong>Autonomy</strong></td>
<td>• Flexibility &amp; complexity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Biracial**

The biracial identity development model listed in Table 2 is but one of the several models that are commonly used today. Proposed by Poston in 1990 it was the first modern explanation of biracial identity formation, where it was acceptable to identify with more than just one group. The Park (1927) and Stonequist (1937) models of biracial identity of the early twentieth century were predicated on living a “marginal” existence because of the “mutually exclusive natures of black and white backgrounds” (Daniel, 1996, p. 134). The monoracial models of Cross and Helms assume that from the first stage the individual has a firm sense of his or her group membership. According to Poston’s model, a biracial child first has to determine with which group he or she wants to identify: race A, race B, biracial (mixed), or no race. And this identification is not fixed; individuals have the right to adjust how they identify themselves throughout their lifetimes (Root, 1996).

James Jacobs’s separate model of biracial development deals with how young children cope with color and race (Jacobs, 1992). A continuation of a 1977 study, Jacobs’s study uses a doll-play instrument. Thirty-six dolls are designed to represent 12 adults, 12 children, 12 babies and are decorated to characterize a range of races or colors, 6 skin and hair color combinations—from dark brown (skin color) with black hair to white with blond hair. The intermediate range includes medium brown with black hair, light brown with medium-brown hair, white with black hair and Asian features, and white with brown hair. Researchers record interviews with parents and the child (3-12 in age) who manipulates the dolls according to posed-scenario questions. Jacobs’s stages of biracial development include Pre-Color Constancy, Post-Color Constancy, and Biracial Identity. In the first stage (pre-color), the child plays with and experiments with color freely, without firm classification of social groups by race. In the second stage (color constancy), which Jacobs notes usually begins at about four years, the child is starting to understand color with respect to him and his parents. This child has internalized the biracial label but associates it strictly in terms of skin color. During stage three, the approximately 8- to 12-year-old child understands that racial group membership is dictated by his parents and family and not his skin color (Jacobs, 1992).

**Support**

**Family**

Parents of biracial or multiracial children make decisions about how to rear their children based on their own experiences, but the major indicator is the racial ideology that parents choose not necessarily their races (Rockquemore et al., 2006). Some parents opt for a color-blind ideology where they stress that membership to a single race is neither necessary nor desired. Others adopt ideologies that challenge the status quo of U.S. racial tensions and preemptively prepare their children for possible encounters with racial discrimination. They believe that such run-ins are inevitable for their bi- or multiracial children (Rockquemore et al., 2006).

Several researchers suggest that the community in which a family lives can provide support to a bi- or multiracial child. If the neighborhood is diverse and cross-ethnic/racial tension is low, it can provide an environment where a child can see positive models of different ethnic or racial groups. Beyond that in a racially diverse community, a bi- or multiracial child will be exposed to positive interracial interactions (Miller & Rotheram-Borus, 1994). Even when a family believes in a color-blind ideology, it is important that children have the opportunity to work through their racial identities with support. For example, even if a black/white child is raised in a white social world, that child will eventually encounter racism with the U.S. history of hypothesis, or the one-drop rule, once he or she is beyond the limits of what his or her parents can control—notably at school (Root & Kelley, 2003). As race is a social construct, it is common that others assume the racial identity of children and adolescents, which can conflict with the labels that a child understands (Tatum, 2003). Remember, Jacobs (1992) suggests that young children grasp labels before they comprehend the social meaning behind a racial label.

**School**

Schools are often the first large-scale social environments that young children encounter outside of their homes. Because stereotypes that young children (monoracial as well as multiracial) are exposed to become the foundation of prejudices that arise in adolescence and adulthood (Tatum, 2003), teachers should create classroom atmospheres that are welcoming to all students. Teachers need to explore their personal feelings about biracial children and consider changing any biases that may interfere with a positive experience with bi- or multiracial children. Those teachers who are unable to rectify any biases they might have with interracial families or their children should not work with biracial children (Wardle, 1992).

Louise Derman-Sparks (1989) stresses the importance of teachers working with families to provide support for bi- and multiracial children in
their classrooms. In order to respond to children’s common questions, it is best to find out how each family identifies their child or children, especially before approaching lessons on racial similarities and differences (Derman-Sparks, 1989, p. 37). Because this can easily be an awkward subject to broach, teachers can use a form questionnaire (Derman-Sparks, 1989, p. 67; Schwartz, 1998).

The materials in a classroom should include references to multiracial families, including books and dolls (G.-L. Lee & Johnson, 2000; Schwartz, 1998). Young elementary school children grapple with color, according to Jacobs (1992). To provide opportunities to explore and reflect on their own physical features, tools such as mirrors and art materials to play with color should be provided (Wardle, 2004a).

Curriculum approaches should be modified to not alienate bi- or multiracial children. The way that multicultural education is handled most often today is by the use of single group diversity—learning about different groups at separate times (Wardle, 2004b). Thoroughly accepted examples of the use of the single group diversity approach are the designations of February as Black History month and May as Asian/Pacific American History month. This tourist approach involves concentrating on a single group where students look at the group collectively, when the clothing, food, and other customs are considered in tandem with the phenotypical look of the people. The people are then objectified as much as their style of dress. Students do not learn to see people from these groups as individuals. This approach also stresses that groups are distinct; everyone should be neatly placed in one category. This puts the multiracial child in an awkward predicament (Wardle & Cruz-Janzen, 2004).

This tourist approach is included in James Banks’s scheme of four approaches to multicultural education from Cultural Diversity and Education (2001): Contributions, Ethnic Additive, Transformative, and Decision Making and Social Action (also cited in Wardle & Cruz-Janzen, 2004). The tourist approach mentioned above represents the Contributions level, the lowest rung in terms of required critical analysis and problem solving. The Ethnic Additive approach keeps the structure of the lesson similar to the Contributions model, but includes more content, themes, and perspectives. History is usually offered in a Eurocentric view, but here details about what was happening with other groups at the same time are offered in the same lesson. For example, as Americans moved westward toward Manifest Destiny in the late nineteenth century, they displaced Native Americans who moved south. The Transformative approach, the next level of Banks’s plan, “begins to unravel the traditional Eurocentric male perspective by examining the points of view of other groups, including women of all backgrounds” (Wardle & Cruz-Janzen, 2004, p. 42). The final approach of Banks’s model is the Decision-Making and Social Action Approach, with roots in Friere (1970), where students problem solve inequalities in their schools and communities while gaining an education (Wardle & Cruz-Janzen, 2004).

**Conclusion**

The percentage of multiracial identification has been on the rise since 1967, when the Supreme Court ruled unconstitutional the last anti-miscegenation laws in this country (“Loving v. Virginia”). Sociologists estimate that the multiracial population could reach 20% of the total U.S. population by 2050 (J. Lee & Bean, 2003). Since multiracial children will increasingly be a part of classrooms, school administrators and teachers should learn to work with these whole, complex, and varied individuals as well as their families.

Racial identity development for multiracial individuals does not neatly fit into monoracial models that have been established by Cross (1995) and Helms (1995). Choosing to identify with a single race is a complicated decision that an individual makes. Others, including Poston and Jacobs, argue that all of a person’s races should be explored if not ultimately embraced (Jacobs, 1992; Poston, 1990).

A bi- or multiracial person’s identity formation journey through the tangled web of race in this country begins at a young age, before he or she is able to understand the social implications and consequences of race. Both the home and the school can be beneficial guides at the start of this life-long process. Parents make the initial choice of how to introduce their children to the meaning of race and how it will affect their lives. But the racial ideology parents choose affects decisions that they will make about the rearing of their children more than their racial labels (Rockquemore et al., 2006). A racially and ethnically diverse community can also provide important support for multiracial children, especially if it is conflict-free (Miller & Rotheram-Borus, 1994).

Schools introduce all students to a larger and generally more varied population than many of them may have been exposed to within their families and neighborhoods. It is important for teachers to create a supportive environment in which to welcome all children regardless of race or any other social determinant (Derman-Sparks, 1989). Stereotypes learned in the home as well as at school may flourish.
to become the foundation of prejudice in later childhood and adolescence (Tatum, 2003). These stereotypes, some of which are racially based, can cause internal conflict for the students who cannot check any single racial box.

There are many suggestions for alternative curriculum approaches that move beyond single-group diversity curriculum, where any one group is taught in isolation of other human populations and development (Wardle & Cruz-Janzen, 2004). James A. Banks’s levels are Contributions, Ethnic Additive, Transformative, and Decision Making/Social Action; at each level, one group is increasingly more incorporated with the whole of human society (Banks, 2001; Wardle & Cruz-Janzen, 2004).

Race and racism in the U.S. has had a long history. Multiracial children who would have previously fallen between the margins of strict racial categories (Daniel, 1996), are free to self-identify as they and/or their parents choose: monoracial with any one of their races; biracial or multiracial with all of their races; or raceless (Root, 2003). Both families and schools can support children on the way to well-developed racial identities. And as the U.S. population increasingly diversifies, there are opportunities for more research in multiracial identification. Because one or both of the parents of a multiracial child is also not just one race, the multiracial experience deserves more exploration. The majority of post-1967 research concerns persons with parentage of two distinct races (e.g., White & Black, White & Asian).

Recommendations for Practice

Racial identity development is a complicated process for everyone, and more so for the increasing multiracial population in the United States. School is typically the most prominent social venue for young people, beyond family-related activities. And attitudes and cultural messages learned at school can have a profound affect on how these individuals come to see all of the aspects of their heritages. Schools and teachers have the opportunity and responsibility to promote positive racial identity development. While in elementary school most children are not actively negotiating identity, the foundations of this later process are instilled at this time. Children readily absorb stereotypes and other prejudices from authority figures such as teachers. Every effort should be made to avoid alienating any student. There are some specific practices that the research supports, as well as some things to avoid. These lists are not exhaustive, but offer a good starting point. These suggestions draw on works from the literature review, especially Wardle & Cruz-Janzen (2004), Root & Kelly (2003), and Banks (2001).

Practices to promote:

- Approach each child with an open mind.
- Incorporate more perspectives than just the mainstream, which historically has not allowed for multiple group associations.
- Be flexible with the changes that a student adopts about his or her racial identity.
- Consult families for their attitudes about their children’s identities, which are established at the outset by parents.
- Provide opportunities for all students to think about their backgrounds. Few students are only one ethnicity.
- Provide situations for students to explore their physical characteristics.
- Include examples of multiracial people—visually and otherwise—in the classroom.
- Allow students to create their own multiracial curricular materials.
- Encourage students to have positive attitudes about their unique identities.

Cautions:

- Avoid judgments based on phenotypical appearance of students.
- Be skeptical of textbooks that claim to be “multicultural.”
- Do not allow biased behavior or language.
- Be conscious of how students may internalize messages sent by classroom environment.

One’s racial identification can change throughout his or her lifetime (Root, 1996). Elementary schools and teachers have always been a significant early influence. As the multiracial population in the U.S. continues to rise, it is important that schools and teachers create learning environments that foster healthy, positive views of all racial and ethnic groups. Diversity within even a single group is often varied—from skin, hair, and eye color. Children who come from families of more than one racial group should be exposed to the idea that single group membership is not necessary. However, a student may choose to identify with only one group. As outsiders, teachers should be respectful of these very personal decisions.

Ideas learned in elementary school become the foundation for the many types of identity formation starting in adolescence (Tatum, 2003). Schools have
the opportunity and responsibility to be supportive and encouraging toward all students, including those from multiracial families. By working with parents and families, schools and teachers can be supportive in a way that is congruent with the students’ families’ wishes and selected ideology. It has been forty years since the Supreme Court overturned the last anti-miscegenation laws in the U.S. (“Loving v. Virginia,”), and the multiracial population continues to grow. As the student population moves beyond single-box status, teachers can and should do things within their classrooms to de-stigmatize those children who cannot easily define themselves racially. Teachers can no longer afford to assume that every child identifies in line with his or her last name or even skin color. Race is a loaded construct in the world, and the first two centuries of this country have proved to be even more complicated. Children who come from families of more than one race deserve to receive messages that they are valued by society.

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The Aesthetic Experience: An Interdisciplinary Approach to Art Education
by Seth Vanzant

As schools struggle to meet annual yearly progress (AYP) in core subjects as prescribed by the current No Child Left Behind legislation (NCLB), educators are faced with a narrowed curriculum that leaves little time for education in the arts. This paper explores the benefits of art integration programs and provides an historical overview of the current state of the arts in public education. Additionally, the theories of Howard Gardner, John Dewey, and Elliot Eisner described in this paper illustrate the cognitive, social, and personal benefits of art education. A close look at successful art integration programs shows how an interdisciplinary approach via the arts can enhance student learning in core subject areas and increase academic motivation.

Introduction

Art integration can be defined as the use of “the arts” (visual arts, music, drama, and dance) to help construct and expand knowledge in other academic subjects (Hamblen, 1997a). It has been well-documented that art education has beneficial outcomes in regard to cognitive and social development (Hamblen, 1997b). In spite of these benefits, many advocates of art education are confronted with narrowing curriculum and standardized testing prescribed by the current “No Child Left Behind” Act (NCLB). In this paper, I explore the rationale behind supporting art integration programs.

The importance of integrating art into the curriculum becomes apparent when looking at the stipulations of NCLB. Standardized testing prescribed by this law leaves little time for education in the arts. Under this decree, schools are forced to meet annual yearly progress (AYP) in the core subjects of reading, writing, math, and science (Chapman, 2005a, 2005b). The focus of NCLB is to educate students to be adequate contributors to the U.S. economy and the global market and to be an asset in the supremacy of the U.S. economy in global competition. As Chapman (2005a) explains, ever-increasing time allocated to core subjects worries advocates of art education as the curriculum narrows to improve test scores. Under these conditions, educators are faced with the dilemma and expedient option of cutting out the arts to meet AYP in the core subjects. Yet, it is shown that when faced with standardized testing, educators can utilize art integration programs to augment learning in core subjects while simultaneously providing students aesthetic and imaginative educational experiences.

Currently, there is a comprehensive selection of research addressing the social and cognitive benefits of integrating art into existing curriculum. Important educational theorists such as Howard Gardner, Elliot Eisner, and John Dewey have presented concrete evidence that art education contributes greatly to cognitive, psychomotor, and social development (Efland, 2002; Fox & Diffily, 2001; Jackson, 1998).

In some regard, integrated art research was limited. The lack of research in art integration indicates that the field may have deficient funding and administrative support. However, there were some articles that surfaced out of the Educational Resources Information Center (ERIC) that focused on integration techniques and the outcomes of art integrated programs. Many of the case studies presented in this paper connect the visual arts, drama, and music to various academic areas. The available research illustrates how connecting art with other subjects can enhance student motivation and learning.

This paper will address several of the leading theories, and proponents, of art integration. The discussion that follows is divided into four distinct sections. The first will explore the evolution of art as a discipline through a historical analysis of various educational reform efforts. Next will be a discussion on the qualitative benefits of art education supported by well-documented theoretical rationales that demonstrate the social and cognitive qualities of art education. The third section will present an overview of currently applied art integration strategies in various elementary school settings. Finally, this paper will provide recommendations for practical use of integrating the arts into the existing curricula.

History of Art Education

Throughout history, art education has received little support in regard to funding and recognition as a legitimate subject (Efland, 1990). Many of the ills that surround art education occur out of the delineation of art as a nonacademic subject. Evidently, current educational reform movements placed art educators at odds. On the national level, standardized testing in core subjects became a
paramount focus in education, with minimal support for the arts.

The 1980s dawned a new era of educational reform, which emphasized “excellence in education,” with major implications regarding art education (Delacruz & Dunn, 1995; Zeller, 1984). In 1983, the Reagan administration issued *A Nation at Risk*, which was directed at blaming America’s schools for the decline of the United States’ status in the competing global market (Spring, 2005). The report stated that “the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people” (Education, 1983, p. 1). The report put emphasis on competence and accountability concerning core subjects, namely reading, writing, math, and science, with no respect to the arts or humanities. This document embedded fear that American students would fail to meet the requirements for competent participation in the global economy. *A Nation at Risk* vibrated rigorous reform, which prescribed standardized testing to maximize proficiency levels in core subjects (Delacruz & Dunn, 1995). Art educators feared this report in that it called forth painstaking standards in core subjects while devaluing the benefits of art education (Zeller, 1984).

Disciplined Based Art Education (DBAE) evolved out of the “Excellence in Education” movement in line with *A Nation at Risk* (Delacruz & Dunn, 1995; Hamblen, 1993, 1997a). Karen Hamblen (1992; 1993; 1997a) gives precise accounts of the formation and evolution of DBAE theory. DBAE was created by The Getty Center for Education in the Arts, which was founded in 1982 and headed by W. Dwaine Greer. The Getty Center and DBAE were a response to the “Excellence in Education” movement, with an aim at increasing support for art-education in public schools. *A Nation at Risk*, as Hamblen notes, was a signal to art educators that the discipline was being threatened by standardized testing. DBAE, as Hamblen describes, was directed at initiating a theory of art education that went beyond the creative nature of art to focus more on the disciplinary structure of art. Prior to DBAE, art education consisted mainly of studio production (art creation). DBAE theory proposed that art education should be directed toward disciplined based subjects characterized by art criticism, art history, aesthetics, and studio production. Focusing on discipline based art was an effort to bestow value in a subject that was beginning to lose national support (Hamblen, 1992, 1993, 1997a).

DBAE was founded on the principle that art education needed to be structured in order to gain recognition as a core academic area (Hamblen, 1992, 1993, 1997a). Hamblen (1992; 1993; 1997a) also described the arrangement of DBAE theory, which was structured in a way that emphasized measurable outcomes and formal assessments of student knowledge in the arts. She went on to explain that DBAE developed a structured curriculum, which encompassed the four subject areas, with less emphasis on studio production and the creative process. In addition, art curriculum under DBAE was in written form, ordered throughout all grade levels, and implemented in all school districts in the United States. The primary focus of DBAE theory was on the visual arts and aesthetics, where each discipline of art was to be integrated. This approach stressed critical examination of aesthetic qualities of Western fine-art and emphasized curriculum structure.

During the 1990s, DBAE received profound criticisms regarding the direction art education was headed under its control (Hamblen, 1992, 1993, 1997a). Hamblen states that Postmodern, multicultural, and feminist views challenged DBAE theory and called for a reassessment of the structure and intent behind its practice. She notes that curriculum defined by DBAE consisted only of the analysis of form and structure (formalism), with no focus on the social or historical meanings and functions behind artwork. Aside from focusing solely on form, DBAE only emphasized Western fine art within the curriculum. With no recognition of other forms of art, DBAE was labeled as ethnocentric and insensitive to cultural, feminine, folk, and various other forms of non-western artwork. Studio production for art-educators was the expressive component to art education and a major complaint regarding DBAE, in that it received little emphasis under its guidelines. Art educators felt that strict curriculum guidelines devalued the expressive nature of art education, and criticized DBAE for placing too much emphasis on aesthetics. Aside from the curriculum content, opponents of DBAE also criticized the theory for not emphasizing art integration throughout subject areas.

In response to DBAE criticisms, Hamblen (1993; 1997a) explains how a new form of DBAE emerged, namely Neo-DBAE. Hamblen (1997a) states that the emergence of Neo-DBAE brought three major changes to the curriculum and theory of art education. First, Neo-DBAE expanded the selection of studied artwork, including cultural art and various other forms of diverse artwork. In accordance with multicultural issues, this change deemphasized elitist Western art as the focus of study. Secondly, Neo-DBAE emphasized a more comprehensive curriculum. Hamblen (1993) describes two underlying
features regarding the comprehensive approach to DBAE theory including: integration of the four disciplines (aesthetics, art-criticism, art history, and studio production), as well as the integration of art with other academic areas. This approach claims that art education is beneficial to cognitive processes, and that art study can enhance educational experiences in other academic areas. For example, Hamblen (1993) states that art is beneficial in that it promotes “imaginative thinking, abilities to hypothesize, and predispositions to ambiguity” (p. 12). Lastly, Neo-DBAE asserted that formalized assessment, such as qualitative tests, diminished the genuine quality of expressive art. In response, advocates of Neo-DBAE emphasized portfolio reviews as a means for art assessment.

In 2001, the Bush administration passed the No Child Left Behind Act (NCLB), which like A Nation at Risk, was designed to reform educational standards to increase the United States’ status in the global market (Chapman, 2005a, 2005b). Laura Chapman describes the ramifications of NCLB. NCLB enforced rigorous standards on core subjects including math, reading, and science. Standardized testing became the focal point for meeting “adequate yearly progress” (AYP) in these subject areas. As Chapman (2005a) explains, the “goal is to ensure that 95% to 100% of students score ‘proficient or above’ in reading, mathematics, and science by 2014,“ (p. 7) with no emphasis on art education or the humanities. She further describes how these standards have had major influence on the way teachers teach. In order to meet the requirements of NCLB and AYP, teachers are forced to spend an incredible amount of time preparing students to meet these new academic standards. NCLB requires teachers to “drill and kill” in hope of increasing test scores in core subjects (Neill, 2006). These standards place the arts at risk, in that the curriculum has been narrowed to meet the required subjects stressed by NCLB.

Chapman (2005a; 2005b) also indicates that art education, which has often been given insignificant funding and support, is losing even more recognition under NCLB. Although the arts were originally included in NCLB, allotted funds were reduced in 2003; as Chapman (2005a) explains, “the Bush administration has a policy of terminating small categorical programs with limited impact in order to fund higher priorities” (p. 13). This illustrates the diminishing of art education, where only subjects that support NCLB are funded. With little funding and support from NCLB, art education, as Chapman describes, takes on new forms, represented by enrichment classes, after-school programs, art at recess, and more integration within academic areas. The rising tide of educational reform and standardized testing exemplify some of the obstacles that deter education in the arts.

**Theoretical Analysis**

It is useful to look at the studies and research that support the study of art. Numerous researchers and authors provide a comprehensive selection of literature that focuses on the value of art within the field of cognitive development. The literature points to a reassessment of the benefits of art education, and it places emphasis on individual and societal benefits resulting from art education.

Research has shown that the creation and interpretation of art is vital to education because it is a fundamental form of communication that influences cognitive and personal development (Efland, 2002; Faraday, 1990; Fox & Diffily, 2001; Hamblen, 1997b; Heymsfeld, 1997; Longley, 1999; Roper & Davis, 2000). Carla Heymsfeld (1997) describes in her article “Art – The Fourth R” how theoretical connections and brain development have propelled the arts into the forefront of cognitive development, justifying its place in education. She explains that recent research, regarding the hemispheres of the brain, has shown that most people are inclined to depend on one side of the brain more than the other, which indicates that people have different learning styles. Also, hemispheric studies of the brain have shown that spatial and visual abilities are predominant functions of the brain. Brain research has launched new ways of understanding how people learn, with emphasis on multiple modalities. Heymsfeld indicates that cognitive theorists such as Howard Gardner have shown that individuals who are able to use their preferred modality of learning, learn more efficiently.

Howard Gardner’s theory of multiple intelligences is central to the support for art in education, by emphasizing multiple modalities of learning (Bartel, 2005; Efland, 2002; Fox & Diffily, 2001; Hamblen, 1997b; Heymsfeld, 1997; Longley, 1999; Roper & Davis, 2000; Whitaker, 1996). From Harvard University came Project Zero, a project that began in 1967, which dealt with learning, cognition, and symbolic processing (Efland, 2002). Efland describes that Project Zero, headed by Nelson Goodman, aimed to show correlations between art and cognitive functions. Goodman states that “art is not a matter of passive reception, but rather one of active inquiry” (Efland, 2002, p. 60). The notion of “active inquiry” emphasizes that art has a major function in the cognitive processes and the way individuals perceive the world. Out of Project Zero came Howard Gardner and his theory of multiple intelligences, which further support art as a cognitive
process (Efland, 2002). Gardner’s theory describes seven forms of intelligence that make up the cognitive faculties of the brain: “(1) linguistic; (2) musical; (3) logical mathematical; (4) spatial; (5) bodily-kinesthetic; (6) intrapersonal; (7) interpersonal” (Efland, 2002, p. 61).

Furthermore, Gardner’s work, as Roper and Davis (2000) describe, emphasized the importance of symbolism as a way in which people understand the world. Gardner believed that a child’s growth is contingent upon their competence in the understanding of cultural symbols. Gardner defines symbols as, “any entity (material or abstract) that can denote or refer to any other entity … so long as it is used (and interpreted) as representing some kind of information” (Roper & Davis, 2000, p. 227). Efland (2002) explains how research in symbol-systems led Gardner to his development of multiple intelligences. Gardner believed that the discipline of art encompassed several symbol systems that enhanced multiple modalities in learning; he felt that the educational system ignored these forms of perception, and emphasized only mathematical and linguistic intelligences (Efland, 2002). Multiple intelligence theory indicates that educational systems should engage the arts and the cognitive modalities associated within the seven intelligence faculties.

Similar to Gardner’s theory is Elliot Eisner’s “Forms of Representation,” (Efland, 2002). As Efland explains, Eisner’s theory supports art education in that it emphasizes that the origin of experience is a derivative of the human senses. Eisner emphasized that multiple modalities of learning are apparent due to human sensory perception, where “some aspects of human experience are simply better expressed through some forms than through others” (Efland, 2002, p. 62). Efland states that Eisner focused on the biological aspects of the human senses, and stressed that the human senses were the underlying determinants to understanding experiences.

In addition to Eisner and Gardner, John Dewey’s ideas on art and education show significant support for the integration of art with other subjects. Dewey believed that learning is a personal endeavor, and therefore varies between individuals. Further, Dewey emphasized that learning takes place when a student is actively engaged in the subject (Goldberg, 1997). As Philip Jackson (1998) explains, Dewey placed emphasis on the artistic nature of practical skills such as cooking, weaving, and carpentry. John Dewey saw art as:

an attitude of spirit, a state of mind – one which demands for its satisfaction and fulfilling a shaping of matter to new and more significant form. To feel the meaning of what one is doing and to rejoice in that meaning, to unite in one concurrent fact the unfolding of the inner life and the ordered development of material conditions – that is art. (Efland, 1990, p. 170)

As Efland (1990) explains, Dewey believed that the process of creating art not only benefited the artist as artist, but also provided the individual with skills that could be transferred from one situation to another. To demonstrate this belief, Dewey states, “Perhaps the greatest of all pedagogical fallacies is the notion that a person learns only the particular thing he is studying at the time” (Walling, 2000, p. 79). In this sense, artistic qualities can be expressed and transferred to all of life’s experiences.

In addition to the nature of art, Dewey gave equal importance to the observational and aesthetic properties of art education (Jackson, 1998). Jackson notes that Dewey saw art not only as a delightful experience, but as an aesthetic quality that broadens one’s perception of the world. In this case, art is seen as a way of transmitting meaning and value to future experiences. Efland (1995) explains that Dewey saw the artist “as being involved in the reconstruction of his or her experience in the process of making a work of art,” (p. 31). Similarly, as Efland (1990) states, Dewey also recognized that interactions take place within aesthetic observation; art is therefore seen as means by which individuals expand their perception of reality.

Many researchers have stressed the importance of imagination. Dewey (1954) referred to the imaginative characteristics of art and its contribution to scientific inquiry. Dewey believed that individual creativity was a cornerstone to scientific advancement; Dewey saw creativity as a problem solving tool that would benefit the field of science. In addition, Dewey (1954) regarded science as “the method of observation and of interpretation of what is being observed” (p. 5). Furthermore, Dewey placed emphasis on the aesthetic interpretation of art, and its ability to promote critical observational skills and imaginative problem solving. Conversely, as Eric Oddleifson (1997) describes, Elliot Eisner also took Dewey’s view on the importance of imagination. Eisner criticized educators that didn’t promote art and imagination; he believed that imagination was a necessary component to cognitive growth and personal development. Similarly, Charles Fowler (1996) states that “[b]y exercising imagination, humans have been able to transform and reinvent the world in infinite arrangements” (p. 63).

Charles Fowler (1996), a leading advocate and author of art education puts emphasis on the “life skills” that are acquired through art experiences.
Similar to Dewey, Fowler believes that the art experience helps students develop skills that can be useful in non-art situations. Furthermore, he believes that the development of imagination through art not only helps students discover who they are, but it also promotes a larger cultural perspective within. Fowler (1996) states that art “furnishes students with a crucial aesthetic metaphor of what life at its best might be” (p. 106). For example, he explains how learning to view aesthetic qualities in art is a mode of thinking that can be transferred over to infinite situations in life. The act of perception is therefore seen as a frame-of-mind that should be nurtured because it has positive associations with the way one interprets reality. Additionally, Fowler asserts that aesthetic education is the way in which humans come to realize the greatest possibilities of life, and a means for understanding the world.

Theories that support art education have been given adequate attention by numerous authors and researchers. With these theorists, educators can justify the importance of art education because of its influence on personal and cognitive development. Reported success within the field has shown astounding results regarding changes in student development; Carla Heymsfeld (1997) defines some of these changes as:

1. development of self discipline, imagination, and creativity;
2. replacement of the demand for instant success with a willingness to work toward long-term goals;
3. increased ability to concentrate and focus;
4. improvement in divergent thinking and problem solving;
5. increased self esteem;
6. deepening capacity for empathy and compassion. (p. 2)

Art not only benefits aesthetic development, but also helps strengthen psychomotor skills (Fox & Diffily, 2001). Fox and Diffily (2001) explain how drawing, painting, cutting, and various other artistic techniques help develop muscles in the hand. In addition to the development of motor movement, art also enhances hand and eye coordination. In accordance with Howard Gardner and John Dewey, Fox and Diffily (2001) reinstate the cognitive benefits of art education. For example, they note that art supports higher-ordered thinking and teaches students to problem solve and evaluate spatial arrangements. These changes illustrate the benefits of integrating art across the curriculum, as well as the ability of art to make lasting impressions on the individual.

**Arts in Action: Case Studies**

In regard to reading comprehension and writing, researchers have shed light on the benefits of art integration (Hamblen, 1997b). Hamblen (1997b) explains that art illustrations in books have been proven to increase reading comprehension in that sensory components enhance concept attainment. One study which included a group of second and third grade children applied the use of drawing before written exercises and found that students who drew before writing scored higher on writing quality measures than students who did not draw beforehand (Hamblen, 1997b). Hamblen (1997b) references yet another study that closely correlates with the previous findings. A different study has shown that through participation in art integration programs, where reading was coupled with art, children that were two to five years below grade level in reading made significant advances within a five month timeframe (Hamblen, 1997b).

Virginia Bartel (2005) describes an integrated art lesson that was conducted by two kindergarten teachers at Mary Ford Elementary in Charleston, South Carolina. These teachers used art prints to teach the basic characteristics of art such as line and color. Students began to talk about and connect with the styles of each artist and tried adapting it into their own artwork. Teachers found that students could retell read-aloud stories easier by focusing on the visual clues in the books. Aside from reading comprehension, students also showed personal growth in regard to their own artwork. For example, students wrote stories about their art and expressed personal experiences that were being conveyed within their work. Above all, Bartel (2005) notes that by focusing on art, students made great progress in their oral and reading skills.

A similar study, presented in Jill Fox and Deborah Diffily’s (2001) article “Integrating the Visual Arts,” shows how art integration enhanced student confidence and self perception. This study focused on the classroom art museum. One kindergarten class consisting of five and six year old students were given numerous types of art materials to work with and they were encouraged to create as much as they wanted. In the process, they developed an area of the room that was dedicated to their art. They created titles and stories for their art and took part in class discussions about their artwork and what it meant to them personally. Through this project students learned to talk about their art with other students and developed a sense of self which was reflected in their artwork, discussions, and stories. Fox and Diffily (2001) state that through the classroom art museum students gained confidence in...
themselves as artists as well as the ability to reflect upon their personal experiences.

In accordance with the latter two studies, Terry Fogg and Marilyn Smith (2001) describe a program that shows strong correlations between art education and reading comprehension. “The Artists-in-the-Classroom” program took place at Bancroft Elementary which is a Title I school composed of a highly diverse student population of about 650 students consisting of 22 ethnic groups, 14 language groups, and 70% of whom received subsidized lunches. Eight artists worked directly with elementary students grades one, two, and four. Students worked with artists during their science lessons; lessons were complemented with artwork projects correlating to science themes. Over the course of the school year, students showed increased motivation and time on-task while also showing significant increases on reading comprehension tests (standardized test scores for any grade level increased from very low to low). The “Artists in the Classroom” project illustrates how the integration of art can increase competence levels in other academic areas.

Brain studies have shown that movement and emotion are powerful elements that help enhance learning (Wolfe, 2001). Rebecca Hotvedt’s (2001) study with twenty at-risk 2nd graders describes how drama integrated with reading increased student comprehension because it provided movement and emotion. In her study, students were read a story and asked to rewrite it in their own words, where only one student was successful. When she repeated this—and had them act it out before writing—all students were successful when rewriting the story. A reading attitude survey administered before and after showed a significant increase in students’ attitudes toward reading. Also, Hotvedt (2001) noted that students were proud of their accomplishments and took pride in their learning.

Another study shows how art and science can be integrated and the educational benefits of combining these two subjects. In the article Art & Science Grow Together (Stellflue, Allen, & Gerber, 2005), the author shows how two classrooms (4th and 5th) used art to learn about plant parts; for instance, students painted pots and planted bulbs, then observed the growth of the plants over the course of the school year. The authors state that art integration increased student observational skills, and enhanced learning in science. This project also showed increased motivation among students, which also contributed to their success in learning. In brief, this project illustrates the connectedness of art with other academic areas.

Nancy Whitaker (1996) describes an art integration program that tried to integrate music with classroom lessons. This study shows that art integration is not always well received. The school’s music teacher began by trying to get teachers involved with integrating classroom lessons with music. The music teacher found little support and failed. Whitaker explains that the reason the integration program failed was due to lack of support from administrators and the school community. For instance, teachers did not value the program because it interfered with curriculum responsibilities and planning, and essentially added weight to their work load. Also, administrators felt that the music program was not complementary to the overall mission of the school.

Conclusions

Reviewing the historical background of art education reveals an enduring trend of insufficient support and funding. A Nation at Risk generated a sense of fear and urgency among art educators in that it emphasized increased proficiency in core subjects while giving little attention to the arts (Zeller, 1984). Justifying the arts in public education has been an ongoing struggle for advocates of art education, reflected in the development and reassessment of Discipline Based Art Education (Hamblen, 1992, 1993, 1997a).

Currently, the No Child Left Behind (NCLB) law places art education below other core subjects in attention and importance, as schools struggle to meet “annual yearly progress” (AYP) (Chapman, 2005, 2005b). Designed to increase the United States’ status in the competing global market, NCLB emphasizes rigorous testing in core subjects as the focal point for meeting AYP by the year 2014. As Laura Chapman (2005a; 2005b) indicates, these standards have a major influence on the way teachers educate, i.e. in which subject areas teachers spend the majority of their time preparing students to meet new academic standards. In spite of narrowed curriculum and standardized testing, art advocates have found ways to revive art education, namely integrating the arts into existing curricula (Chapman, 2005a, 2005b).

The research supporting art integration is substantial and clearly defines the cognitive and social benefits of art education. Carla Heymsfeld (1997) describes how brain research has shown that spatial and visual abilities are primary functions of the brain indicating that there are multiple modes of learning. Stemming from this research, Howard Gardner’s theory of multiple intelligences (MI) delineates seven modalities of learning that are central to the cognitive process (Efland, 2002). Furthermore, as Efland (2002) describes, Gardner emphasizes that art includes symbolic systems that promote multiple learning styles and yet he believes...
that educational systems, as a whole, only recognize mathematical and linguistic intelligences (Efland, 2002). In brief, Gardner’s MI theory indicates that the art discipline is cognitively engaging and should be emphasized within any curriculum.

In addition to Gardner’s MI theory, the literature points to Elliot Eisner, John Dewey, and Charles Fowler as leading proponents for art education. Eisner’s “Forms of Representation” recognizes how the origin of experience is derived from the human senses. In support of multiple learning styles, Eisner specified that the human experience is expressed through sensory perception, indicating that there are different ways of communicating experience and understanding (Efland, 2002). John Dewey’s views illustrate that art is actively engaging, where skills attained in artistic endeavors can be transferred from one situation to the next (Efland, 2002). In addition, Dewey’s (1954) findings assert that the observational skills involved in aesthetic inquiry promote scientific advancement and unique problem solving. Both Eisner and Dewey saw art as an imaginative process that allowed individuals to broaden their perception of the world (Oddleifson, 1997). In congruence with Dewey’s research, Charles Fowler (1996) describes the practical elements of aesthetic experiences; his findings illustrate how art activities help promote practical skills that can be transferred to infinite situations in life. Furthermore, Fowler (1996) supports the premise that artistic investigation is the means by which individuals come to interpret their reality.

In short, current research in classroom settings illustrates how connecting art with other subjects can enhance student learning and motivation. The case studies presented in this review illustrate the correlations between art integration and success in other academic areas. Several studies reveal that increased reading comprehension could be attained through art integration programs. Moreover, personal growth including increased academic performance and confidence, time on-task, motivation, and personal reflection were all attributed to art integration programs.

In summary, the current literature has shown significant support for art integration. In addition, the available research illustrates a connectedness between art and other subjects, and in all reviewed cases art integration helped promote academic success. Furthermore, cognitive theorists provide support for the study of art by illustrating the cognitive and personal benefits that the discipline provides. With these theories, art advocates can build strong supporting arguments for art integration and help bring the arts back to the classroom, thus avoiding the false dichotomy of whether or not to have art classes in schools. Finally, as teachers are confronted with rigorous curriculum standards, additional research on how to implement successful art integration programs would be highly beneficial.

**Recommendations for Practice**

As the current research indicates, art education is currently at a critical point in its history. Standardized testing and prescribed curriculum in core subject areas has diminished the amount of time that educators can spend teaching the arts (Chapman, 2005a). The literature suggests that there are many cognitive and social benefits associated with the creation of art, thus indicating an urgency to revive the discipline. Teachers dedicated to bringing the arts back into the classroom can do so by integrating the arts with the existing curricula. There are some specific recommendations for practice that teachers can use to make art integration happen in their classrooms; namely, collaboration with other teachers and community artists, increasing accessibility to art materials, and professional development in art integration techniques. The following recommendations can be used as a starting point for designing and nurturing the aesthetic experience in education.

To begin, the literature points to teacher collaboration as a useful tool for successful art integration programs (Whitaker, 1996). Some key components to successful teacher collaboration include enthusiasm and willingness to work with others. Therefore, positive beliefs and attitudes regarding the beneficial outcomes of art integration are essential to its implementation. Additionally, team lesson planning allows teachers to gain holistic insight into curriculum standards, facility resources, student interests, and materials access. Accordingly, teachers involved with art integration should share ideas, as this reinforces the discipline’s concepts and allows teachers to expand their repertoires of successful integrative lessons. In brief, collaboration with other teachers offers support and new ideas on how to put art integration into practice (Bartel, 2005).

Teacher collaboration with community artists is yet another great recommendation for teachers who are interested in art integration (Fogg & Smith, 2001). Inviting community artists into the classroom is a wonderful opportunity to expose children to practicing artists. Additionally, artists in residence programs present new ways of observing and creating art in the classroom. Along with community artists, students also benefit from taking field trips to local museums, plays, and musical events as ways to promote larger cultural perspectives. These latter experiences expose students to many different styles.
of art, and can also further connect them to their communities (Fowler, 1996).

In addition to art instruction, teachers can foster the aesthetic experience by providing students with a wide array of art materials. In Fox and Diffily’s (2001) study, students had easy access to a variety of art materials and were given the freedom to express themselves with whichever art medium they desired. This recommendation encourages creativity and originality in art, and allows children to explore numerous possibilities for self-expression. Therefore, creating an area in the classroom where art materials are easily attainable will encourage student exploration in the arts.

Moreover, professional development in the arts exposes teachers to ideas, techniques, and the overall value of integrating the arts to increase academic performance in core subjects (Heymsfeld, 1997). Therefore, teachers interested in integrating the arts should acquire a wide repertoire and understanding of various artistic techniques. Presenting students with numerous art methods offers multiple pathways for expressing themselves via the arts, and helps promote multiple intelligences (Efland, 2002; Hamblen, 1997b). One successful technique from the literature employed the use of classroom art museums as a way to increase student motivation and self-reflection (Fox & Diffily, 2001). Additionally, classroom techniques such as drawing and writing activities, and the use of drama for interpreting reading assignments has shown success in raising student academic achievement and scholastic motivation (Hamblen, 1997b; Hotvedt, 2001).

In conclusion, techniques for bringing art back into the classroom are showing positive outcomes in student performance in school. Techniques that foster success by integrating art into the curricula include teacher and community artist involvement and collaboration, easy access to classroom art materials, and professional development in art integration techniques. These best practices recognize and promote the positive aspects of art education. Teaching derived from multiple perspectives in the arts extends student understandings and confidence, and supports the transfer of knowledge through a wide range of educational activities. It is now up to dedicated teachers to understand the value of bringing the arts back into the classroom and thereby create an aesthetic school experience for all.

References


Book Censorship in Schools: Narrowing Student Reading Choices

by Christina Wright

Book censorship in schools is still happening today. Censorship is defined by the Intellectual Freedom Manual as “the deletion or excision of parts of published materials and efforts to ban, prohibit, suppress, remove, label, or restrict materials” (ALA, 1983, p. xi). Schools, teachers, and students are not exempt from the controversy that it can cause. According to the American Library Association (ALA), parents were the most common initiators of challenges from 1990-2000 and schools and school libraries were two of the most targeted institutions. There is some research which suggests that decreasing or removing access to materials of interest to students decreases reading. However, many challenges still go unreported and the true extent of censorship and the educational impact on students is still unknown.

Introduction

For as long as books have been published, they have been targeted by censorship. Schools, teachers, and students are not exempt from the controversy that censors can cause when they challenge a book. Schools having to fight censorship battles become burdened financially. Teachers may lose confidence in their teaching or fear being fired when materials they select are targeted (Foerstel, 2002). Based on the fact that public education in the United States is open to all, and information about schools must be made available to the public, many different people have input about the materials and ideas that should be used for education. Censorship occurs when these ideas conflict. As the school population continues to become more diverse racially, ethnically, and economically, censorship conflicts are likely to continue.

This paper will provide a historical perspective on censorship, through an examination of the major court decisions involving censorship controversies. For a more recent perspective, several examples of major incidents in schools occurring within the last 40 years are discussed, including a violent incident that took place in Kanawha County, West Virginia (Foerstel, 2002; Moffett, 1988). Although censorship has always been around, it is argued that it has become more prevalent in schools since the 1950s (Karolides, Burress, & Kean, 2001).

The conflicts involving censorship are complex because of the number of people and the range of interests involved in public education and the number of different topics that have the potential to be challenged. Research from 1990-2000 by the American Library Association (ALA) stated that parents with children in schools challenge books the most, although both religious conservatives and liberal groups are involved in challenges as well (ALA, 2000b). Religious conservatives seek to protect children and liberal groups seek equality through the elimination of biases and prejudice (Brinkley, 1999). Although many individuals and groups initiate challenges, the topics they choose to target differ greatly. Some topics commonly targeted are sexual content and offensive language (ALA, 2006). In addition to the conflicts among groups seeking censorship, the forms that censorship takes will be examined. Following this, the paper will examine the relationship between access to reading materials and the amount that students read.

There are several research limitations to this paper. There is little quantitative research about how censorship affects schools, teachers, and students. The research that is available from the ALA is incomplete since most challenges to books are never reported (ALA, 2006). In addition to this, there is no research on censorship broken down by state, region, or specific institution. While the ALA collects data about the type of institution, the name of the institution and the region or state where the challenge took place are not collected. Finally, while there are many suggestions available regarding the educational impacts of censorship on students, they are not research based.

This paper will use the definition given for censorship by the American Library Association (ALA) Intellectual Freedom Manual, defined as “the deletion or excision of parts of published materials and efforts to ban, prohibit, suppress, remove, label, or restrict materials” (ALA, 1983, p. xi). Complete definitions of all the parts of censorship are included in the definitions portion of this paper.

Literature Review

According to the American Library Association website page on challenged and banned books, seventy-one percent of challenges between 1990 and 2000 were to material in school or school libraries.
Public schools showed that the censorship (defined as boards choose appropriate materials for students. Selection is seen as a positive and generally acceptable type of censorship (Petress, 2005). Selection is a type of censorship that occurs before materials reach students. In contrast, challenges mainly occur after materials have reached students. A challenge is defined as an attempt to restrict or remove materials due to objections by an individual or group (ALA, 2006). Banning is a deliberate removal of the materials (ALA, 2006).

Censorship encompasses all of these actions. For example, a parent who requests an alternate book for his or her child is denying access for only one child. A parent who removes a book from a library shelf denies access to other children. (Swidererek, 1996). The first action could be called selection, and the second, banning. Censorship can occur without banning materials.

**History, Major Incidents and Major Court Cases**

Censorship has been occurring for centuries in many ways. It has been a part of U.S. history, and it continues today. Censorship in schools, however, has become more prevalent since the 1950s. An early case involving school censorship was the Scopes trial in 1925. A Tennessee teacher named John Scopes challenged a new state law banning the teaching of evolution in public schools (Demac, 1990; Giordano, 2003). This challenge did not involve books, but is an example of curriculum censorship.

Book censorship was not as prevalent in schools prior to the 1950s because few schools had libraries (Karolides et al., 2001). As school libraries became larger and more diverse, there was more literature available to students. Around the same time, books in general became more available due to the postwar paperback revolution (Karolides et al., 2001). Expanding availability of books exposed more people to more diverse ideas and led to an increase in censorship.

Another decision that helped push censorship was the reaction to the 1963 Supreme Court ruling prohibiting prayer in schools. The religious right felt that their religion was being censored. They claimed that other religions were still being taught and used it as a basis to challenge books with values that conflicted with their own. Religious censorship indirectly affected book and material censorship in schools.

Another example of book censorship occurs before books are even printed. Prior to the 1970s, censorship of children’s books mainly took place by the author or editor before publishing (West, 1997). Young adult and children’s books dealing with controversial social problems or other taboo subjects were not frequently written or published. This is sometimes referred to as pre-censorship.

The first Supreme Court case directly involving the removal of books in public schools was the Board of Education, Island Trees Union Free School District No. 26 v. Pico in 1982 (Symons & Harmon, 1995; Zirkel, 2002). The school board directed school principals to remove eleven books that were objectionable to the board. The Superintendent of Schools, Richard Morrow, objected to the decision, and after school board and committee review, only two books were returned to the library, one under restriction.

Students in the Island Trees district, led by Steven Pico, brought a class action suit against the board. After being tried in the District and Appeals courts, the Supreme Court ruled that the school board could not remove books without reasons based on rational grounds such as educational suitability (Foerstel, 2002; Zirkel, 2002). The battle took six years and three court cases (Aurnague-DeSpain & Baas, 1989). This was the first Supreme Court
decision directly involving books being banned from a school library. Cases of censorship can become heated even outside of the courtroom, to the extreme of causing violence. One of the most violent censorship cases in the U.S. happened in 1974 in Kanawha County, West Virginia. The controversy was over textbooks that had recently been recommended for adoption. One school board member, Alice Moore, examined the books and charged that they were “filthy, trashy, disgusting, one-sidedly in favor of blacks, and unpatriotic” (Moffett, 1988, p. 14). Despite her objections, all but eight of the books were adopted by the school board.

Local pastors and community members used boycotts, strikes, and pickets to force the books out of the schools (Foerstel, 2002). There was violence at the picket lines, with 2 men shot, car windows broken, and a CBS-TV crew attacked, as well as threats against school officials and parents (Foerstel, 2002). Schools, school buses, and community members’ homes were attacked and the story made national news (Moffett, 1988).

The following year when school began in Kanawha County, one of the most violently opposed books was adopted without objection. While the violence in Kanawha County has not been repeated, it is an example of the extreme to which some censors will go to have books banned.

A more recent case of censorship happened in 1997, when a teacher in Brooklyn, New York used a book called Nappy Hair for her class. The book had been cited as an “excellent teaching tool for black self-esteem” (Foerstel, 2002, p. 59). The children in her class loved the book, but some parents did not. The teacher, Ruth Sherman, was accused of teaching racist literature, threatened, and suspended from teaching by the superintendent (Foerstel, 2002). The controversy was short lived after more parents had a chance to read the book, but the damage had been done. Ruth Sherman requested a transfer to another school, fearing for her safety. Much of the controversy came because she was a white teacher.

Censorship is not going away, as individuals and groups continue to fight school officials today. No school is exempt. A longtime school district official in Miami, Florida could not remember any previous banning of books in the Miami-Dade district (Anonymous, 2006). Now a controversial series, including a book about Cuba, will be removed from the school library. The book about Cuba was criticized for showing a rosy picture of life, and the whole series is criticized for portraying various nations in the same way. Only the book about Cuba had received a formal complaint. The decision to remove the books has created a politically charged atmosphere in the Miami-Dade school district by splitting Hispanic and non-Hispanic community members (Anonymous, 2006).

Textbook adoption continues to be affected by politics as well. Publishers of textbooks must be able to sell their books and are highly influenced by California and Texas, the two largest markets (Reutzl & Larsen, 1995). While regular authors usually have increased book sales due to censorship, the opposite is true for textbook authors (Ravitch, 2003). With textbook authors more easily influenced, Texas has long been a target of organized censors such as Mel and Norma Gabler (Demac, 1990). As well as targeting Texas, they have assisted other censors throughout the country in book banning campaigns, including the case in Kanawha County, WV.

As the population of the United States becomes more diverse racially, ethnically, and economically, censorship will continue. Changes can occur in the individuals or groups challenging books, the number of books challenged or banned, and the reasons that books are censored.

Initiators
In the past 15 years of data collection by the Office for Intellectual Freedom, a division of the ALA, parents overwhelmingly continue to be the most common initiators of challenges against books. However, since only 15 to 25 percent of challenges are ever reported and only a fraction of those receive media attention, it is difficult to accurately gauge the aspects of censorship (Dorrell & Busch, 2000). From 1999-2000, parents were responsible for 3,891 challenges and library patrons came in second with 936 challenges (ALA, 2000b).

In the following five years, the trend continued, with parents lodging 1,824 challenges from 2000-2005, followed by 466 challenges by other groups, excluding religious organizations, pressure groups, and the government (ALA, 2005b). With the majority of challenges to material in schools and school libraries, it is not surprising that parents are the most frequent initiators of challenges.

Criticisms of censors are that they often do not read the material in question, they take material out of context, and they use a very small portion of material to justify censorship (DellFattore, 1992). Organized censors send out publications that can fuel controversy, according to school officials and protesters (DellFattore, 1992). Parents who have not read the material in question can read summaries of the material from publications and reference them in protests. Organized censors also prey upon the weaknesses of schools, targeting public schools for their accessibility and targeting small schools with
economic vulnerability (Edwards, 1998). While parents are the most common initiators, they may be influenced by liberal or conservative groups.

Religious conservatives want to censor materials that disagree with their beliefs and they also want to protect children. Liberals censors seek to eliminate biases, prejudice, and conservative views (Brinkley, 1999). Both groups attempt censorship, but have different reasons for seeking censorship, as well as different targets within literature. However, conservative groups attempt to censor four times as often as liberal groups (Dorrell & Busch, 2000). In recent years, censorship has come from many different types of groups, including minorities seeking to censor materials that demean their particular ethnic or racial group (Boyer, 2002).

There seems to be sufficient evidence that parents will continue to initiate the majority of censorship attempts. The recorded challenges reported by the Office for Intellectual Freedom, while by no means comprehensive, overwhelmingly place parents at the top. However, there is currently no measurement of how many parents may be influenced or helped in their challenges by larger censorship groups.

Institutions

In correlation with parents being the most common initiators, schools and school libraries are the most targeted institutions. The Office for Intellectual Freedom reported 2,328 challenges to schools and 2,227 challenges to school libraries in the decade of 1990-2000 (ALA, 2000c). Public libraries followed third with 1,561 challenges. From 2000-2005, school libraries were first, with 1,363 challenges, followed by schools with 926 challenges and public libraries with 531 challenges (ALA, 2005c).

For the past ten years, the American Civil Liberties Union has published an annual report documenting book censorship in Texas schools. Since Texas is more of a target for censors because of its textbook adoption policy, the findings should not be generalized to represent the entire United States. For the 2005-2006 school year, 48 schools reported 65 challenges (ACLU, 2006). Of those challenges, 25 percent of the books were banned, 37 percent were restricted, 28 percent were retained, and 11 percent were pending decisions (ACLU, 2006). The percentage of books banned was down from 44 percent for the 2004-2005 school year (ACLU, 2006).

While it is widely known that censors target Texas, there is little information about censorship by state. There seems to be strong evidence that censorship does occur in all states. However, The Office for Intellectual Freedom does not collect information about the state or name of the institution that challenges, only the type of institution. There is no research about the prevalence of censorship by state or region of the country.

Topics Targeted for Censorship

Due to the diversity of individuals or groups that attempt to censor, there are many topics targeted for censorship. Material that was sexually explicit, contained offensive language, or was unsuited to age group was most commonly targeted from 1990-2000 (ALA, 2006). From 2000-2005, the top three types were offensive language, with 811 challenges, sexually explicit with 714 challenges, and other with 583 challenges (ALA, 2005a). Other types of challenges include racism, homosexuality, nudity, religious viewpoint, occult/Satanism, and violence (ALA, 2000a). Sometimes a book is targeted for the overall worldview it represents and the language or sexual content is the material cited for banning (Glanzer, 2004). These types of challenges can be placed into the larger categories of political, religious, sexual, and social.

Two of the chief targets of political censorship are communism and socialism, and the censorship occurs both at the national and local community level (Karolides, Bald, & Sova, 1999). Religious censors seek to protect the prevailing moral and social order as well as to suppress competing views. A common target for religious censors is evolution, such as the 1925 Scopes trial in Tennessee. The occult/Satanism has also been a recent target, in reaction to the popularity of the Harry Potter series.

Material with sexual content is more available now than in the past due to evolving cultural attitudes toward the erotic (Karolides et al., 1999). Censors target materials that contain adultery, dirty words, prostitution or pregnancy out of wedlock. A popular Judy Blume novel, Forever, has been widely banned for its depiction of sexual intimacy between young people (Foerstel, 2002). Social issues such as homosexuality, drug use, and racial characterization are targeted when they do not conform to the standards of censors (Karolides et al., 1999). Huckleberry Finn has been a target of censors since being written over a hundred years ago. It is cited as a book that confronts problems in society and is banned to avoid confrontation with the issues (Magistrale, 1984).

One third to one half of the sources consulted contained discussions focusing on specific books and why they were challenged and/or banned. There is sufficient evidence that there are multiple topics that receive scrutiny from censors. Censorship can come from many places due to political, religious, sexual,
or social issues that are alluded to or confronted in literature.

**Forms Censorship Takes**

Censorship can take many forms, some of which were mentioned in the definitions section. When most people think about book censorship, they think that the book has been removed from circulation at a library or taken out of a classroom. This does happen, but the book first must be challenged by an individual or group. There are other types of censorship that differ from removal.

The alternative answer to banning a book is often restriction of some kind. This can range from labeling or rating books to placing them on a special shelf in the library to requiring parental permission (Scales, 2001). Restriction is a more covert type of censorship. Censors seek to gain rules about parental access to children’s borrowing records and restrict what children can check out at a library (Boyer, 2002). Labeling books with age levels or by content is another way to restrict access to materials.

Occasionally books are not banned or restricted, but are placed back in a library with offending words deleted or sections missing. Deletion of words or sections often occurs before books are published. When this reaches the reader, it would be called censorship by omission. If an author or publisher has taken out the offending word or section, it could also be called self-censorship. Teachers also engage in self-censorship in their classrooms, choosing materials and subjects that are grade-level appropriate. If a book is known to be controversial, a teacher might choose a less controversial one. This also occurs in libraries, with some librarians rejecting books written by controversial authors (Swiderek, 1996).

Publishers also engage in censorship, sometimes deleting material that will be controversial before publishing. There is pressure placed on textbook publishers by Texas and California, the two largest buyers, to avoid controversial material (Reutzê & Larsen, 1995). It is unclear how much censorship of this type occurs. One study comparing stories in 52 literature anthologies with their real book counterparts found that only one percent of the stories showed evidence of censorship, defined as deleted material (Reutzê & Larsen, 1995). This is far from sufficient evidence to estimate how much publisher censorship occurs, but it shows that censorship is present.

Another way that publishers censor materials is by not publishing them. For example, the sector of publishing that will publish books related to homosexuality is small, limiting the books published on this subject (Clyde & Lobban, 2001). It is suggested that the failure to publish, coupled with challenges to these types of books, results in restricted access to books with a homosexual theme (Clyde & Lobban, 2001). Another tactic used by publishers is to mark controversial young adult books as adult books (West, 1997).

Some form of censorship will always be around because censorship involves people. Schools have different students, teachers, and school administrators each year and different people challenge different issues (Petress, 2005). New books are being written every day, some by authors who wish to challenge society. The cultures that we live in are constantly evolving. What is considered culturally taboo or culturally acceptable changes over time, and censorship will as well. What are the impacts of continuing and changing censorship on students’ educational opportunity?

**Access to Reading Materials and the Amount Students Read**

It has been suggested that increased access to and options for choice among diverse reading materials may have a causal role in increasing the motivation to read, resulting in more frequent reading (McQuillan & Au, 2001). Students who read more will be better readers and have better comprehension. Positive correlations have been found between increased reading and higher levels of proficiency (Edmunds & Bauserman, 2006; McQuillan & Au, 2001). Students read more when they have access to materials that interest them (Worthy, Moorman, & Turner, 1999). Exposure to school libraries and other libraries was found to have a positive effect on motivation to read by introducing students to a variety of books (Edmunds & Bauserman, 2006, p. 419). When censorship limits the access or availability of books to students, they will have less choice in materials to read. Decreasing access to books that interest students results in less motivation to read or less reading. Since “research supports the positive effect of increased reading on reading achievement,” less time spent reading means less achievement (Edmunds & Bauserman, 2006, p. 423). More time spent reading in early grades leads to positive impacts on future reading.

**Conclusions**

Historically, censorship has existed for as long as books have been published. It has only been recently, however, that books have been widely available in schools through expanding school libraries. When few schools had libraries, censorship in schools was not as prevalent (Karolides et al., 2001). With the advent of paperbacks and school libraries, to avoid controversial material (Reutzê & Larsen, 1995). It is unclear how much censorship of this type occurs. One study comparing stories in 52 literature anthologies with their real book counterparts found that only one percent of the stories showed evidence of censorship, defined as deleted material (Reutzê & Larsen, 1995). This is far from sufficient evidence to estimate how much publisher censorship occurs, but it shows that censorship is present.

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libraries, schools became more of a target for censors and they continue to be targets today.

In 1982, the first Supreme Court case directly involving the removal of books in public schools, *Island Trees v. Pico*, showed that censorship had become an issue in schools (Symons & Harmon, 1995; Zirkel, 2002). With accompanying violence in some cases, preceding and subsequent controversies over books used in schools in Kanawha County, West Virginia; Brooklyn, New York; and Miami, Florida show that the issue of censorship in schools is here to stay (Anonymous, 2006; Foerstel, 2002; Moffett, 1988).

Currently, ALA data shows that parents, followed by library patrons (in order of frequency), are the most common initiators of censorship challenges (ALA, 2000b). Research also shows that both religious conservatives and liberal groups are involved in censorship attempts, although conservative groups are four times more likely to attempt censorship (Dorrell & Busch, 2000). Along with these groups, ethnic or racial groups sometimes seek censorship when materials are perceived as demeaning to their ethnic or racial constituency (Boyer, 2002).

Since parents with school-aged children are the most common initiators of challenges, it is no surprise that schools and school libraries are the most targeted institutions (ALA, 2000c). Public libraries follow as the third most frequent target. Although other institutions experience censorship challenges, these three have been the most frequent recipients of attempts to control the access to or content of institutional materials.

In keeping with the diversity of censorship initiators and targeted institutions, the topics targeted for censorship are also diverse. Material that was sexually explicit, contained offensive language, or was unsuited to a particular age group was most commonly targeted from 1990-2000 (ALA, 2006). The topics targeted can be categorized as political, religious, sexual and social in nature, thus clearly indicating that censorship comes from all sides (Karolides et al., 1999).

The results of censorship also vary widely and can range from labeling books for age level to removing entire books from libraries. Other results of censorship are deletion of book sections or phrases, restrictions placed on materials that can be checked out, and the selection of books by teachers based on a perception that they are less controversial. Publishers also engage in censorship through the removal of controversial material prior to publishing or by refusing to publish altogether.

Censorship sometimes results in the removal of access to books in schools and school libraries. Research suggests that increased access to diverse reading materials may result in more frequent reading (McQuillan & Au, 2001). Positive correlations have been found between increased reading and achievement (Edmunds & Bauserman, 2006). It has also been shown that students read more when they have access to materials that interest them (Worthy et al., 1999). Decreasing or removing access to materials that interest students decreases reading.

Even with all the information available about censorship, the true extent of censorship and the educational impact on students is still unknown. An estimated seventy-five to eighty percent of challenges still go unreported to the ALA, the major reporting agency (ALA, 2006). Further research needs to be done to document the actual extent of censorship. This research should include breakdowns of censorship by region, state, and reporting institution. In addition, the direct impacts of censorship on student reading frequency and motivation, critical thinking, and attitude formation need to be investigated. It is also unclear what the direct effects of censorship are on students in general, teachers, and schools involved in challenges. With more research, there will be a clearer picture of censorship and the impact that it has on students, teachers, and schools today.

**Recommendations for Practice**

Based on the fact that public schools are open to all, many different people have input about the materials and ideas used for teaching. The nature of censorship is constantly changing since it involves people and materials that change, and different people challenge different things (Petress, 2005). Therefore censorship challenges will be difficult for teachers and schools to avoid. Based on the research, the following practices can be recommended.

Teachers and schools can take steps to prepare for potential censorship challenges. Selecting materials that are age-appropriate for classrooms is important since the third most common reason books were challenged was because they were not considered age-appropriate (ALA, 2000a). Schools board members, one’s colleagues, parent advisory boards and District text adoption committees can be consulted to determine whether materials are age-appropriate. Schools can create a plan for how to respond to challenge or censorship issues when they occur. Schools and school libraries are the most targeted institutions (ALA, 2000c). Creating a response plan in advance will help schools to prepare for future issues.

Open communication about literature selection is another way that teachers and schools can prepare for
censorship challenges. Parents with children in public schools were the most common initiators of challenges from 1990-2000 (ALA, 2000b). Teachers should have clear reasons for selecting literature, documented in some way such as a lesson or unit plan which has been shared with the school administration. Teachers can allow parents access to books that will be used prior to the lesson (DelFattore, 1992). By inviting and encouraging parents to read all of the material in context, situations such as the one in Brooklyn, New York, where a teacher was hastily suspended for teaching a book called *Nappy Hair*, can potentially be avoided (Foerstel, 2002). After more parents had a chance to read the book, the teacher was allowed to return. Since parents are traditionally the most common initiators of challenges against books, providing parents with information about a book that may be controversial before it is used is a key step.

Another response to censorship challenges by parents is to allow their child to read an alternative book. When a lesson plan includes a book that is potentially controversial, teachers can plan alternative books in order to respond if a challenge occurs. However, students should have several choices available to them as alternatives to the chosen book so that the variety of books is not limited by the challenge. Research has shown that exposure to a variety of books has a positive effect on motivation to read (Edmunds & Bauserman, 2006). Providing several alternate choices will still expose the student to a variety.

Teachers and schools can respond to censorship challenges by being prepared. Selecting materials that are age-appropriate, preparing a response plan, and communicating to school administration why a book will be used, with accompanying documentation, are ways to prepare before challenges arises. Also, providing information to parents about potentially controversial books and allowing them to preview them before the lesson can help to avoid challenges. Teachers can also plan for alternative books that students may read if a challenge does occur.

Censorship in schools will continue in the coming years, but teachers should not be afraid to include controversial materials when the inclusion will further the learning of their students. When teachers are aware of censorship issues in schools and have documented lesson or unit plans, they will be well equipped to respond to possible challenges.

References


