

THE POSITIVE IMPACT OF VISUAL ART EDUCATION ON COGNITION AND
AFFECTIVE DEVELOPMENT

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ABSTRACT

Because of the focus on standardized tests and the cut backs in art education due to No Child Left Behind, this study researched the impact of art education on the affective development and cognition of youth. A historical overview of art education that included the major methods of teaching art in the United States was outlined. Thirty research articles were examined. The research fell into three categories: the effect of art education on cognition, the effect of art education on cognition and affective development, and the effect of art education on at-risk youth. The research took place in cities across the United States and Canada. The positive effect of art education was seen in students of various grade levels, socioeconomic status, ethnicities, and community settings. Some findings include: art education provides a place for students to explore and problem solve, work on communication skills through discussion and critiques of art, have and improve on social interactions, and improve cognition. The arts also provide a place for the child who is struggling to succeed and can help with self efficacy. The classroom implications of the examined research were explored as well as suggestions for further research. Trends were found in the research that led to the author's conclusion that art should remain in or be put back in schools.

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CHAPTER 1: INTRODUCTION

Introduction

Imagine that you are standing by a group of students waiting for the bus. As the bus pulls up, some students are talking and laughing but you notice one boy, who looks like he is about 12, moving slowly with his head hung down. Another student comes up and asks, “Hey, what’s up?”

The boy replies, “I don’t even know why I go. I can’t do anything. My mom makes me go.”

“What are you talking about?”

“I don’t know why I go to school. I suck at it! I don’t understand math, I can’t spell, and I hate writing, but that’s all they want me to do. I have a test in math today and I know I’m gonna fail. I can’t do it.”

“Well, at least we got art today.”

“I’m not allowed to go to art. I have an extra math class instead.”

“Oh.”

Rationale

Today one of the major focuses of the United States is educational reform. The competitive spirit of Americans has us wanting to have our education system and our students to be the best in the world. Since this is not currently the case, things are changing. No Child Left Behind (NCLB) brought with it a focus on

standardized testing and a back-to-basics mentality. Many schools are concentrating only on what are considered to be the core academic subjects: math, reading and writing. Students are struggling, parents and communities are concerned, and the pressure to raise the test scores directs most decisions in schools.

The prevailing assumption is that focusing on specific subjects while cutting out others is acceptable, but many people do not agree. An example of this is found in a poll conducted by Americans for the Arts. This poll “found that more than 90 percent of respondents agree the arts are “vital” to providing a well-rounded education to children” (Loschert, 2004, p. 4).

Many believe that students need extra time to improve their academic skills so that test scores will improve. By redirecting the time that the students would spend in music, art, or drama, more time is made available for classroom instruction in core academic areas. However, others believe that the arts are also an extremely important part of education and want to ensure that they stay in the schools.

Catterall and Waldof (1999) found that students who are involved in the arts outperformed those who are not involved in the arts on state tests. Burton, Horowitz and Abeles (2000) found that students who participated in the arts showed more originality, expression, and had higher self-concepts about their academic abilities than students who were not in the arts. Vaughn & Winner (2000) found a correlation between students taking art classes and higher SAT scores. In addition, Gee (2007) wrote about how “arts education stimulates

creativity, builds communication skills, promotes teamwork and engenders love of learning in all subject areas” (p. 6).

Loschert (2004) wrote that students with continued exposure to learning music and theater have “greater success in math and reading, and students from lower socioeconomic backgrounds see the greatest benefit” (p. 4). These findings were reinforced by a study of schools in high-poverty areas in Chicago. The study compared schools that used the Chicago Arts Education Partnerships Program and those that did not. Students who had been exposed to the arts through this program had a greater improvement in their reading and math skills than students in schools without the program (Catterall & Waldof, 1999).

In addition to the academic benefits, Holcomb (2007) also noted benefits [writers format] “in students’ social skills, including: self-confidence and self-control...empathy and social tolerance” (p. 5). Gee (2007) also stated that “arts programming...curbs delinquent behavior, [and] teaches discipline” (p. 5-6). Groves (2006) stated that art education “leads to the discovery of self and leadership skills” (p.55). Students today are perceived as lacking self-control, empathy and compassion, yet these studies show benefits of the arts that address these very challenges.

Williams-Gibson (2007) wrote about how, in an attempt to “change the way kids learn,” educators are discovering that “incorporating the arts into education, not only engages kids to learn, but also catches kids who don’t respond to traditional forms of education” (p. B4). This, however, is not the case in many schools throughout the country. An example of this can be seen at

Martin Luther King Jr. High School in Sacramento, CA. Math, reading and gym are the only classes that about 125 of its students are allowed to take, reported Dillion (2006). A typical day for one of these low performing students consists of two math classes, two English/reading classes and gym. They are not allowed to take history, social studies, science or any art classes. In the same article, Thomas Sobol, an education professor at the Columbia Teachers College, reacted to this type of cutback by stating, "that's like a violin student who's only permitted to play scales, nothing else, day after day, scales, scales, scales. They'd lose their zest for music" (quoted in Dillon, 2006, para. 10).

Bill Strickland, president and CEO of Manchester Bidwell Corporation, discussed how he was an at-risk student and how "if kids become more confident in the arts, they learn to appreciate themselves, feel a sense of accomplishment, build confidence, which translates into improved learning in academic areas" (quoted in Williams-Gibson, 2007, p. B4). Strickland talked about how he was "the kid who wasn't supposed to be able to learn," yet now he is a very successful adult (quoted in Williams-Gibson, 2007, p. B4).

According to Butzin (2007), when the No Child Left Behind Act (NCLB), was passed in 2001, its goal was to "establish a set of basic academic standards that all students should achieve" (p. 768). Having standards that all students and schools were required to meet was supposed to force poor performing schools to rise to the standards and equalize the educational playing field. This, however, has not been the case. With pressure on teachers to have students pass the tests, and fear of what will happen if they do not, many schools, especially poor

performing ones, are focusing only on tested subject areas. This does not provide students the well-rounded education they need.

In the No Child Left Behind Act, the arts are considered a core academic subject. When President Bush signed this act into effect, he agreed that the arts were an important part of academics and that everyone should be exposed to them. Why, then, are the arts being cut out of schools? Because, at this time they are not tested. Schools are evaluated on how their math, science, and English scores improve. The scores from these subject-area tests determine a school's funding. Although, this seems like a good reason to focus only on math, reading, and science, is that truly the best way to ensure every child succeeds? This paper will explore the research and see if an answer to this can be found.

Focusing our resources on English, math, and science is what many feel this country needs to do. Others are claiming that due to NCLB, this is what has to be done. The Center for Education Policy stated that "22 percent of schools have cut back on art and music" since NCLB (Where is art?, 2007, p. 13). Studies show that arts and music can improve academic scores, capture the attention of students likely to drop out, and greatly help schools in high-poverty areas improve. Butzin (2007) stated that "teachers are nearly unanimous in their opposition" of NCLB (p. 768). They can see that it is not working in the classroom. The act may look good on paper, but it is "stifling innovation, rather than encouraging it as the law intended" according to Butzin (2007, p. 768).

Definition of Terms

Cognition has slightly different definitions depending on the field of study in which it is used. In the research that this paper will focus on, cognition has to do with the student's ability to show knowledge, to comprehend, and the ability to analyze. In many of the studies, these skills are determined through standardized tests and student interviews.

Creativity, self-concept, and attitudes are all parts of affective development that will be discussed in this paper in relation to arts education. Arts education involves drama, dance, music and visual arts. This paper will focus on the visual arts. Visual arts encompasses a wide range of media: drawing, painting, pottery, sculpture, jewelry making, graphic design, photography, computer art, and film. Different schools have different focuses and classes that are available depending on the expertise of the teacher. The research that is investigated may not include all of these areas in the study, but all are considered visual arts.

Statement of Purpose

There is debate over whether art can increase academic achievement, or help the at-risk student to stay in school. Test scores are a visible measuring-stick for society, and yet society wants schools in the United States to produce well-rounded adults that are the smartest in the world. To achieve this, the cognition and affective development of today's youth need to be examined. Therefore, this paper will explore the impact of art education, specifically visual art education, on the cognition and affective development of students.

Summary

There is a focus on educational reform in the United States today. No Child Left Behind has brought test scores and academic achievement to the forefront in education. In an attempt to keep the arts in schools during this high stakes testing era many research studies have been conducted. In these studies there are conflicting reports about whether the study of visual arts is beneficial to test scores, cognition and affective development of youth. This paper explores the findings of current research. Chapter two provides an overview of art education's history, chapter three analyzes 30 research articles, and chapter four offers some conclusions to the overall findings from the 30 articles, as well as classroom implications and suggestions for further research.

CHAPTER 2: HISTORICAL OVERVIEW OF ART EDUCATION

Introduction

Chapter one addressed the rationale for the investigation of the effect that the visual arts has on the cognition of students and their affective development. The negative effect that No Child Left Behind has had on the education field was discussed as well as the fact that the arts are considered a core subject even though they are not tested. Chapter two presents a historical overview of the history of art education and provides a glimpse of which models of art education may continue into the future of art education.

The Foundations of Art Education

The history of art education began with Plato and Aristotle. Their writings discussed education and art's place in it (Efland, 1990). Through the years the value placed on art education has varied, as has who different societies felt should be instructed in the arts. Efland (1990) discussed how a society which is trying to survive and ward off invaders, such as Sparta, puts less emphasis on the arts than a society that is stable and does not have to worry about survival. Through the evolution of western art education, the stability or instability of society has had a considerable influence on the emphasis of the arts.

Through antiquity, the arts were taught in an apprenticeship style. They were seen as an important part of the culture, but were not seen as something that young aristocrats needed to learn (Efland, 1990). By the Classical era,

drawing had become a major component of education, but that changed with the rise of the Roman Empire (Efland, 1990).

With the onset of the Middle Ages and the rise of Christianity the sole purpose of art in European society was as a way to honor God and spread the message of Christianity. This was done through the creation of Illuminated manuscripts by monks (Efland, 1990). These monks trained others in the craft and as time progressed the manuscripts became more elaborate. Outside of holy orders, guilds and apprenticeships were vehicles for art instruction during the middle ages. Because of this selective instruction, the arts were beginning to move from the lower classes to the elitist status that has dominated the position of art education since.

During the Renaissance, Leonardo da Vinci and Michelangelo changed the way that art had been taught. Previously, “the Guild master could only transmit skills that he himself possessed; he could not nurture another’s genius” (Efland, 1990, p. 29). Renaissance thinkers formed academies that had groups of artists of various ages. Collaboration encouraged innovation. These academies were a place where new discoveries in the field of art were made regularly as the artists worked together (Efland, 1990).

Art Education in the United States

As the Industrial Revolution was starting, the first art academy in the United States was formed. This gave American artists the chance to study and create art in America instead of going abroad as they had been (Efland, 1990).

The founding fathers of the United States had aspirations for the teaching of arts for the improvement of the American citizen (Levi & Smith, 1991). Art education in America was based on what was happening in Europe. Philosophies and ideas from Europe (mostly England) spread to the U.S. where we expanded on them. Benjamin Franklin took the ideas John Locke had for the arts and shaped them to better fit the philosophy of America. Locke's idea of having the arts taught to the elite was the root of Franklin's proposal that art "is not merely for the gentleman but for the mechanic as well" (Efland, 1990, p. 45). Although Franklin's ideas were never realized, and the arts stayed in the elitist position in society, the idea of art for everyone has continued to today.

In the middle of the 19th century, Europe started to teach art in their universities. America followed suit with Harvard, Princeton and Yale paving the way for other American universities to teach art (Efland, 1990). As the first art academies in the U.S. were started during the 19th century, the focus of art education remained on the fine arts. At this time, the industrial arts that would connect art to business were neglected (Efland, 1990). During the later part of the 19th century, schools such as the Cooper Union, the Pratt Institute and the Rhode Island School of Design were started and offered instruction in both the fine arts and the industrial arts that the society needed (Efland, 1990).

Women were starting to attend higher education in greater numbers, and were becoming teachers. Art was seen as unnecessary by society and was considered only "luxuries to give young ladies from fine families..." (Efland, 1990,

p.142). Still, more students were attending high schools where they could choose to study art or were required to take an art class.

Through the decades, art education moved from the upper levels of education down to finally include the elementary students whom Benjamin Franklin had noted had a “universal tendency...toward drawing” (Efland, 1990, p.45). By the 1920s and 30s, elementary students were being taught art by their classroom teachers. After the Great Depression, the art programs in the high schools were expanded due to more students staying in school until graduation because of a lack of jobs.

After WWII, many of the white middle-class families moved from the cities to the suburbs. As schools were created in these white suburban neighborhoods, they had art and music programs as well as physical education programs taught by specialists (Efland, 1990). With the affluent families moving out of the cities, cutbacks had to be made in city schools to stretch finances. This resulted in the cut back of art supervisors that helped the classroom teachers in teaching art (Efland, 1990). With the cut back in the arts in the cities, and the inclusion of specialists in the white middle-class suburban neighborhoods, American society came to see art education as something only for wealthy white children to study. Society has tried to change this and is still working to do so.

Discipline Based Art Education (DBAE) laid its foundations in the decades between WWII and the 1980's. The Education Institute for the Arts helped to

make this theory wide spread in the 80s and continues to help train teachers in this method of art education. DBAE was formed in a modernist and conservative time and therefore takes on some of those characteristics (Hamblen, 1993). DBAE consists of creating art (studio production), art history, critiquing art, and aesthetics. It also emphasized the “study of art for its own sake” (Hamblen, 1993, p. 4). Discipline Based Arts Education received criticism and over the years has gone through some shifts in its design, focus, and implementation. These shifts have created a new type of DBAE. This new version is called Neo-DBAE and is a post-modern response to the criticism of DBAE and the changing needs of society. It has more of a multicultural perspective than the original version which focused on Western art, and now non-traditional art forms are studied (Hamblen, 1993). This is in contrast to the fact that through the course of education in the United States the ethnic minority’s art and culture had been pushed aside as their education had (Smith, 1996; Spring, 2007). One way that America’s diverse cultures are starting to be celebrated in the schools is through the exploration of diverse art.

Visual Cultural Art Education (VCAE) is considered to be the next shift in art education, and is seen as radical by some educators (Dorn, 2005). VCAE is trying to shift the “traditional emphasis on studio art into a dialog about art as a socially constructed object, devoid of expressive meaning” (Dorn, 2005, para. 2). However, others think that VCAE “...sees art as a means of communication and bases art education on both visual and verbal critique” (Herrmann, 2005, para.

2). Both views are legitimate, and as the years progress how VCAE is or is not implemented in the schools will be something to watch for.

As accountability rises in response to NCLB, and standardized tests become more prominent, the role of art education in the schools has been questioned more frequently. Many still claim that the arts are too elitist and not accessible to all students. There is a strong debate about keeping art in the schools or taking it out. America's founding fathers wanted art to be taught to all and the No Child Left Behind Act includes art as a core curriculum subject, yet there is still debate. Is America at a state of struggling to survive? With the terrorist attack on 9/11, the war in Iraq, and the threat of the economy taking a plunge, the arts may not be seen as important. At its heart, however, the push for educational reform is that the students of today are the leaders of tomorrow. True leaders need a well-rounded education.

Summary

The history of art education stretches far back into history, and society's view of its importance has changed as time progressed. The debate is ongoing about whether the arts are for the elite or for everyone. In the past few decades multiple models for teaching art education have been explored and a new multi-cultural form of art education is emerging. Next, research on the role that art education plays on the cognition of students and their affective development will be reviewed in chapter three.

CHAPTER 3: CRITICAL REVIEW OF THE LITERATURE

Introduction

The rationale for the investigation of the effect that the visual arts have on the cognition of students and their affective development was presented in chapter one. The impact that NCLB has had on art education was also discussed in chapter one. Chapter two provided a historical overview of art education and the different methods used to teach art through the years. This chapter reviews 30 research articles that address how the arts affect cognition and the affective development of youth in the United States and Canada. The articles are divided into three sections: cognition, affective development, and the effect of visual art on at-risk youth. In the section on cognition there are 12 articles that are reviewed. The second section about affective development reviews five articles. The section on at-risk youth has 13 articles that discuss how the cognition and affective development of at-risk youth are affected by art.

The Effect of Art Education on Cognition

The 12 articles in this section all discuss the effect that art has on the cognition of students. The types of studies vary as do the findings. Eight of the articles in this section had positive results for their study, and four had varying or partial results.

Woodman (1997) constructed a one group pretest posttest study on a group of 29 sixth grade students in her art class that met once a week for 45

minutes in an Illinois school to see if by increasing the art criticism process in the classroom the students would be better at making decisions and solving problems. The researcher found varying results. The pretest included a Venn diagram, an art project that showed problem solving, and a problem solving test that required the student to come up with five possible solutions to a situation. Other data that was collected included a teacher survey given before the school year started and critique sessions during class in which the researcher tallied how often the students performed the specific criteria that the researcher was looking for.

Woodman (1997) started out the treatment of the class with a “review and refinement of art vocabulary” (p.32). In addition to the vocabulary, open-ended questioning techniques and constructive criticism were taught, critique sessions were put in place and students created and used journals. Of the 29 students in the class, 26 took part in the pretest data and 27 were part of the posttest data. The posttest problem solving test showed an increase from the majority (54 percent) of students being able to create two or less solutions to the majority of the students (59 percent) being able to respond with three or more valid solutions. The metacognitive section of the problem solving test, in which the student explained the solution they thought would be the best one and why, had an increase from 35 percent of students being able to explain their reasoning to 44 percent on the posttest.

Woodman (1997) found that on the Venn diagram portion of the tests there was a 92 percent increase in the student’s ability to show critical-thinking in

the responses that they wrote down. The critical thinking was scored based on the number of responses that they wrote and was categorized into the different levels that Woodman (1997) assigned to the different numbers of responses.

From October through February, Woodman (1997) held several critique sessions with the class in which the researcher had a check sheet that tallies were made on. The tally marks in the different fields being observed varied through the months. The researcher attributes these variations to the interest level of the students in the particular session's topic/image. The final part of the assessment was an art project. This was a paper with four preprinted shapes on it that the students used to create an artwork, with additional requirements. Woodman (1997) "observed more original solutions" to the posttest art project compared to the pretest art project (p.38).

Some weaknesses of this research are that the gender, ethnicity and socio-economic class of the students were not provided. There was no comparison available to see whether the increased scores were due to the art lessons or something happening in another classroom. Additionally, more time was given on the posttest than pretest which could also be a factor in the data.

Next, in an attempt to determine whether students who attend elementary schools that emphasize the arts had higher school achievement than children who attend a school without an art emphasis, Bezruczko (1997) conducted a correlational study of four elementary schools in Chicago. The data showed positive results. Two schools that emphasized art and two schools that did not were compared based on their Iowa Test of Basic Skills scores for math. The

students at the two art schools had different economic and ethnic backgrounds as well as differing amounts of emphasis on the arts. The art schools were matched with schools of similar socioeconomic backgrounds and type of school (magnet or not). Six years of test scores were analyzed from a group of 414 children of approximate gender distribution who had stayed at their school from first through sixth grade.

Bezruczko (1997) found that while score differences between the schools at the end of grade one were insignificant, by grade three, the school that had a more intense focus on the arts had significantly higher math scores ($p < .05$). By sixth grade, the art intensive school's gap had increased to .63 standard deviation units ($p < .001$). The fact that the researcher found equivalent schools to compare is a strength of the study, however the generalizability of the research can not be determined since the schools involved in the research were all from the same geographic area.

In a correlational study to determine whether there is a relationship between the development of children's drawing and their development in the cognitive area of science, Nelson, Martin & Baldwin (1998) investigated 91 children four to eight years old (mean age of 5.32), and the data showed a positive correlation. Forty-two students were male and 49 were female. The students were predominantly Caucasian and were enrolled in either one of three Head Start programs, a university laboratory nursery school, an ecumenical nursery program or kindergarten to second grade of a public elementary school in Arkansas.

Nelson, Martin & Baldwin (1998) individually asked the students to draw a picture that was later evaluated for aesthetics and on the age of the child. Each drawing was given scores for aesthetics, developmental age of the student and a total art score. Any child-initiated conversation during their drawing was recorded by the researcher. The students were also individually asked to identify objects that were made from a variety of materials (wood, metal, plastic and glass). The students had to use scientific skills to determine what they thought the objects were made of. A significant correlation was found between the total drawing scores of the students and the science scores ($r = .32, p < .001$).

Nelson, Martin & Baldwin's (1998) study was limited in the number of participants, and because only one drawing and one scientific identification was assessed for each child. The gender of the students was approximately equal (42 boys and 49 girls) and a number of sites were used in the study, however the students were predominately Caucasian and were all from the same geographic area which is a further weakness of the study.

To determine the impact that Chicago Arts Partnerships in Education (CAPE) has on the academic performance of students, Catterall & Waldorf (1999) performed a longitudinal study that compared test scores of students in Chicago Public Schools (CPS) to the test scores of students in 37 schools in Illinois that were initiating the CAPE program (only 20 schools remained active for the initial six years of the program). Positive results were found. Test scores in reading and math were compared between schools with the program and those without using the Iowa Test of Basic Skills and the National Basic Skills

Test. The non-CAPE schools were chosen based on student demographics and past performance that were similar to the CAPE schools.

In addition to the two basic skills tests that the schools used, Catterall & Waldorf (1999) also analyzed the scores from the Illinois Goals Assessment Program (IGAP). Data was collected from 1992 through 1998 and comparisons were made for every grade tested (third, sixth, eighth, ninth, tenth, and 11th). In addition, teacher and student surveys, classroom observations, interviews, focus groups, document review and case studies were collected. Various results were found including higher percentage rates for the CAPE schools in both reading and math scores. The 1992 percentage of sixth grade students above grade level in math was higher for the CAPE schools (40 percent) than the CPS (28 percent). By 1998 the difference in the scores for the sixth grade percentage above grade level in math had increased with CAPE schools to 60 percent and the CPS to only 40 percent. The percentage above reading level in sixth grade for CAPE schools started out in 1992 at 38 percent and the CPS at 30 percent, and by 1998 the difference between the groups had raised to a 14 percentage points difference with the CAPE students scoring higher.

On critiquing this study it can be noted that the CPS schools were chosen based on past performance and student demographics similar to the CAPE schools'. However, the schools were all from the same geographic location and therefore the generalizability of the program to other geographic areas can not be determined. In addition to choosing schools that were equivalent for the study, a strength is the number of schools used.

Using a correlational study of 2,406 students in four states in the eastern United States, Burton, Horowitz & Abeles (2000) sought to find out whether the cognitive skills that students acquire in the arts transfer to other subject matter and if it has an effect on learning in general. They had variable findings. Twelve public schools from the eastern part of the United States took part in the research. Seven of the schools were in New York City, two more elsewhere in New York State, one in Virginia, one in Connecticut and one in South Carolina. Seven of the schools were elementary schools, four were middle schools and one was a school that had students from kindergarten through eighth grade. Two thousand four hundred six students in the fourth, fifth, seventh and eighth grades were the subjects of the study. The schools involved in the research all had the arts taught and were divided based on the amount of art that was taught and placed in a high arts or low arts group. Multiple tests were used to collect the data.

Burton, Horowitz & Abeles (2000) did several different ANOVAs with the following variables: risk taking, task persistence, ownership of learning, and student view of accomplishment in reading and math. No clear evidence of transfer was found, but students from the high arts groups scored higher on the Torrance Test of Creative Thinking (TTCT), Teacher Perception Scale (TPS) ($r = .94$), and Self Descriptive Questionnaire (SDQ). The researchers found that there was a significant difference between the high arts and the low arts groups on two sections of the TTCT: the Creativity Index (high arts 37.01 percent, low arts 11.84 percent), and Elaboration (high arts 41.31 percent, low arts 11.21

percent). On the TPS the total score which included expression, risk-taking, imagination-creativity and cooperation, the high arts groups scored higher (35.99 percent) than the low arts group (10.15 percent). The SDQ had the high arts group scoring higher on two sections: academic self concept (high arts 41.10 percent, low arts 17.76 percent) and total self concept (high arts 34.15 percent, low arts 17.97 percent).

The sample that was used in this research was not random, there was no control group and there was no control for maturation or history of the individual schools that were used. Strengths of the study include the large number of participants from multiple sites in multiple states. Positive results were not found for the question that was being researched, but positive results were found on the impact of the arts on the affective development of the participants.

In a correlational study, Vaughn & Winner (2000) found a positive correlation between the number of years a student has taken classes in the arts affects their score on the verbal and math SAT scores. The researchers examined 94 to 95 percent of SAT test scores from 1987-1998, as this was the percentage of students who voluntarily filled out the questionnaire part of the test. Because the test was recalibrated in 1996, test scores from '96-98 were re-centered to the scale that the previous years used so they could be comparable through the years. Analysis was done three times: once for composite scores, once for verbal and once for math. This was done to see if a particular score was affected more by the arts involvement of the student.

The number of years involved in the arts was compared to the SAT scores and Vaughn & Winner (2000) found that students who had taken art classes received higher scores on the SAT than those who did not. A one-way ANOVA ($p < .0001$) was used and found that students who had taken visual art classes received higher scores in both verbal (no art: 400.7, studio arts: 443.6, art history/appreciation: 441.0) and math scores (no art: 464.9, studio arts: 495.4, art history/appreciation: 489.2). Vaughn & Winner (2000) acknowledged that the students who take the SATs might come from different backgrounds and have different future goals than those who do not take the test or classes in art. It also should be noted that many colleges require that classes in the arts be taken in high school as a prerequisite for admission into their school. Although there was a correlation, this research does not mean that taking classes in the arts causes the higher test scores.

Lopez (2000) studied 328 children from grades two through five and found positive correlations between art education, academic achievement and children's sense of self-efficacy. The students were 45 percent female, however the ethnicity, socio-economic status and geographic location of the subjects were not mentioned in the article.

The Student Perceptions of Control Questionnaire: Academic Domain was used by Lopez (2000) to determine academic and artistic efficacy and academic achievement was assessed with teacher assigned grades for math, science and reading. Correlations were found between artistic and academic ability ($r = .35$, $p < .01$), school ability and artistic efficacy ($r = .26$, $p < .01$), and school efficacy

and artistic efficacy ($r = .37, p < .01$). The females in the study reported higher mean levels of efficacy compared to the boys ($p < .07 - .0001$). The data from this study showed a positive correlation between arts education and academic achievement.

Second and fourth grade students at Byron Primary School in Minnesota and an unnamed comparison school were part of a five year study by Housen (2001) to determine whether there was an existence of transfer between the Visual Thinking Strategies Program (VTS) and other academic areas. The data revealed positive results. VTS is a curriculum designed for beginning viewers of art. It was designed to help them be engaged with the art they are viewing. Byron Primary School had ten VTS lessons over the course of a year. Data was collected from 50 participants – 25 in a control group and 25 in the experimental group. The participants were in two age ranges – second and fourth grade.

Housen's (2001) study, which involved numerous data collecting methods, found that critical thinking scores on the Aesthetic Development Interview, which is a documentation of the monologue that the participant makes when describing a piece of art that they are looking at, were higher for both experimental groups with the younger group showing a larger gain ($p < .0004$). The year two mean score for the young experimental group was approximately 1.95 and the mean score for the older experimental group was approximately 1.3. The young control group's score was approximately .2 and the older control's score was approximately .75. The researcher found that by year five of the study the differences between the groups were more apparent. The young experimental

mean critical thinking scores averaged approximately 7.5, and the older experimental scores were approximately 4.25. This compared to the younger control group's score of approximately 2 and the older control group's score of approximately 2.25.

In addition to the critical thinking findings, Housen (2001) found that the students in the VTS program showed improvement on state testing scores (2.5 times the average state gain). This study was limited in that all of the students were from the same school district which makes the generalizability of the study hard to determine.

Wilkins, et. al. (2003) conducted a correlational study to see whether the amount of time spent in art, music and physical education had an effect on the standardized test scores of 547 elementary schools' third and fifth grade students and found a partial correlation. One thousand one hundred sixty-seven surveys were sent out to Virginia elementary school principals that asked how much time was spent each week in art, music and physical education. Five hundred forty-seven surveys were returned and used in the study. The information gathered in the surveys was then compared to scores of the students on the Virginia state-wide standardized test (based on the Virginia standards of learning) to see whether the amount of time spent in these classes, not considered core classes, influenced the test scores that measured the student's knowledge of the core subjects of math, science, social studies and English. The passing percentage for each of the four core subjects were obtained from the Virginia Department of Education for each of the participating schools at the third and fifth grade level. A

school's overall passing rate was determined by taking the four scores, standardizing them and then averaging them.

Wilkins, et. al. (2003) took into account the time that the students spent in art, music, and physical education from kindergarten through third grade and then from third through fifth grade. The data revealed no statistically significant relationship between the amount of time spent with an art or music specialist and the school overall passing percentage. The data revealed that the schools that gave less time to the untested specialist classes did not receive higher percentage passing scores. However, the schools that gave more time to these classes did not receive higher scores either.

A strength of Wilkins, et. al.'s (2003) study is that the researchers did take into account the possibility of the amount of time in these classes changing over the span of the data and included a question on their survey to take that data into account. The data was taken from a whole state, but because it was only one state (VA) the information is not as generalizable as it could be if data from multiple states across the country had been involved.

In a correlational study, Lampert (2006) studied whether there is a difference in critical thinking dispositions between students in the arts and students not in the arts. One hundred fourteen undergraduate students at an East Coast university complete the California Critical Thinking Dispositions Inventory (CCTDI), and a positive correlation was found. The CCTDI is a 75 item Likert-type test which has reliability between .90 and .91. The students who took the test were divided into four groups: freshman students in art (32 students),

freshman without art (32 students), non-art juniors and seniors (32 students), and junior and senior art students (45 students). Participants for the study were recruited from introductory psychology classes and introductory and advanced fine art classes as well as art education classes.

Lampert (2006) conducted a two-way ANOVA to compare the scores between the art and non-art groups and the class groupings. The researcher found that on three of the subscales of the CCTDI both arts groups scored significantly higher: truth-seeking ($p = .009$), critical thinking maturity ($p = .002$), and open-mindedness ($p = .032$). The findings indicated that participation in the arts may help with critical thinking skills. Weaknesses of the study were its limited number of participants, and that the sample was strategically targeted and not a wide sample of the student body.

Edens & Potter (2001) performed a correlational study with three groups that had a pretest, a posttest and an additional posttest two weeks later and found positive correlations between a drawing activity combined with a science lesson on the comprehension of science concepts for 184 fourth and fifth grade students at an elementary school from the southeastern part of the United States. Eighty-nine of the participants were male and 95 were female. The ethnicities of the participants were that 100 were African American, 78 were European Americans, and five were of Asian ethnicity. A pretest was given to all three groups to make sure there were no statistically significant differences between the groups and between the grade levels.

After the pretest, Edens & Potter (2001) attempted to activate prior knowledge by reading a short passage of text on the conservation of energy and seeing a video clip about roller coasters. Each of the groups approached the next part of the research a little differently. One group read a narrative text about roller coasters and the law of conservation of energy and then wrote about roller coasters using the principles learned from the reading. The second group read the same passage and then recreated an image from the text that showed a roller coaster demonstrating the principles. The third group read the text, but their version had three additional prompts. Two prompts within the text had the students stop reading and create a drawing of their own that represented what they had just read and label the image with the principles they had just learned. The third prompt was at the end of the text and had the students look back at their drawing and answer a short set of questions. After the lesson, a posttest that consisted of ten questions from the pretest that were rearranged and slightly modified was given to all of the students. After two weeks, an additional posttest was given to see how well the information stayed with the students in the different groups.

Edens & Potter (2001) analyzed the data by performing a MANOVA, an ANOVA, and an ANCOVA. The ANOVA showed that the conceptual understanding of the group that created their own drawing was higher than the other two groups ($p < .001$). The generative group and the group that copied the illustration did better on the posttest than the writing group ($p < .05$). The ANCOVA showed that the generative group outperformed the writing group ($p <$

.003). Of the variables that were compared, only the variable of gender appears to have had an impact on the post and delayed test scores with the females out performing the males ($p < .03$).

A strength of the study was that they had three different groups that were compared, two of which were using art in different ways. This enabled the researchers to compare the results from copying a preexisting illustration and the student generated illustrations. A weakness of the study is that the students were all from the same school which makes the data hard to generalize. Another weakness is that the method of instruction was different for the groups. The fact that the generative groups did better on the test may be due to the fact that their reading and activities were broken up into three different sections that they reviewed as they went through the lesson and not the fact that they created their own drawing.

Building on their previous research, Edens & Potter (2007) found varying results through multiple ANOVAs in a correlational study that involved 101 fourth graders and 115 fifth graders in a southeastern city who had a regularly scheduled art class, in an attempt to determine if spatial understanding and the ability to draw schematic drawings influences problem solving ability, and if there is a difference between the genders. During normally scheduled art classes students were given a drawing task and several mathematical problems. The math tasks called for students to generate drawings to help solve the math problems. Also, students were asked to draw themselves and the friends playing on the school playground with the school building in the background and a dog

standing in front of them. The researchers had the student's artwork evaluated by two researchers for spatial understanding using Case's levels of conceptual structure. Problem solving was measured by how accurate the student's answers to the four problems on the scenario they were given. The schematic drawing that the students made during the problem solving task were also evaluated.

Edens & Potter (2007) found a correlation between the students problem solving ability and their spatial understanding ($r = .27, p < .001$). A positive relationship between schematic visual representations and problem solving ability was found ($p < .001$). A significant difference ($p < .00$) existed between the levels of schematic representation and the dependable variable of problem solving.

Edens & Potter (2007) claimed that artwork can help a student develop a spatial understanding which, in turn, can help students in their problem solving and mathematical ability. The study was limited in that all of the participants were from the same school and all had a regular art class that they attended. A strength of the study was that gender was equally distributed between the grades and both grades had similar proportions of African American and Caucasian students.

The research discussed in this section showed varying results, but taken as a whole indicates a positive relationship between art and the cognition of youth. The 12 research articles that were discussed examined different aspects of cognition. The positive impact that involvement in the arts has on SAT scores

(Vaughn & Winner, 2000), critical thinking skills (Lampert, 2006), decision making (Woodman, 1997), and academic achievement (Bezruczko, 1997; Catterall & Waldorf, 1999; Lopez, 2000; Wilkins, et. al., 2003) were all examined. Correlational studies were conducted by Edens & Potter (2001; 2007), Nelson, Martin & Baldwin (1998) and positive results were found. To determine if transfer occurs between the arts and other academic subjects, studies were conducted by Burton, Horowitz & Abeles (2000) and Housen (2001) with varying results. These studies show that the arts do have a positive impact on the cognition of students and show that keeping the arts in schools will benefit the students as well as the test scores.

The Effect of Art Education on Cognition and Affective Development

The research in this section of the literature review is focused on the positive impact of art on the affective development and cognition of children and youth. The researchers focused on different aspects of affective development including: self concept, self-efficacy, and peer relations. Only four articles that focused on cognition and affective development did not focus on at-risk youth. Additional research on the impact of art on the affective development and cognition of youth is discussed in the following section that focuses on at-risk youth.

Schubert & Melnick (1997) investigated the effect of integrating the arts into 11 school districts in Pennsylvania in urban, suburban and rural settings that ranged from elementary to high school in a qualitative study which showed a

positive effect on the cognition and affective development of participants. The school districts were each partnered with institutions of higher education to help integrate one or more of the fine arts with civics, English and geography. Each district had one or more of the arts as their focal point and the range of integration that occurred varied. Some schools integrated the arts into their pre-existing curriculum and others created new units that involved the arts. The length of the arts integration ranged from a few weeks to the entire school year. In-depth narrative interviews of 70 teachers and administrators and 25 students were conducted over one year.

Through the in-depth interviews with teachers, administrators, and students, Schubert & Melnick (1997) found that students had more positive attitudes about school, that they had increased self-concept, were noted for taking on leadership roles which they were not known to do in the past, and that students were absent less. One school had a 34 percent decrease in absenteeism. The researcher claimed that, with the arts integrated into the curriculum, the students were better able to see the connections between subjects. The students noted this as made it easier to learn. The researcher claimed that the arts integration also allowed for the students to discover interests and strengths that they may not have found otherwise.

Weaknesses of the study are that the information collected does not account for the Hawthorne Effect and is all from the same state. Strengths of the study are that it took place in multiple school districts in a variety of settings

(urban, rural and suburban) and that there was a wide range of participants (elementary age through high school).

Next, Luftig (2000) explored the effect of the SPECTRA+ program on the academic achievement, creativity, self-concept, locus of control, and appreciation of the arts on a diverse group of 615 elementary school students in second, fourth and fifth grade in South-Western Ohio by using a modified pretest posttest design study. The study found that the SPECTRA+ program raised the total creativity and originality scores of those who participated in the program. The two school districts involved in the study were each divided into a SPECTRA+ group and either a full control or a modified control group. The modified control group received a program that was new to them, but did not involve the arts, in order to account for the Hawthorn Effect.

Luftig (2000) measured five variables using six instruments. Self-esteem was measured with the Culture Free Self-Esteem Inventory (a 30 item form) with concurrent validity of .71-.82 with the Coopersmith Self-Esteem Inventory. Locus of Control was measured with the Bailer-Cromwell Locus of Control Scale (a 23 item yes/no questionnaire) which had no available data on reliability or validity. The Torrance Tests of Creative Thinking was used to measure creative thinking and had an interrater reliability that ranged from .92-.94. Appreciation of the Arts was measured with the Art Appreciation Test (a 17 category, 61 item, three point Likert-type scale test) that on its pilot study had a reliability ranging from .84-.89. Academic Achievement was measured with the Iowa Tests of Basic Skills and

Stanford Achievement Tests. The pretest was given over a two day period for each child. The tests were given in the student's regular classroom.

The differences found by Luftig (2000) between the pre- and posttest scores on the Torrance Tests of Creative Thinking ($p < .019$) were highest for the SPECTRA+ groups (15.53) and least for the full control group (3.37) with the modified control group's difference nearer to the full control group (4.23). Similar results were found for the originality scores ($p < .0001$) on the Torrance Tests of Creative Thinking with the largest difference for the SPECTRA+ group (14.01), the least difference for the full control group (-5.54) and the modified control group closer to the full control group difference (0.60). There was not found to be a benefit in the math scores with the SPECTRA+ program, however a gender difference was found in the scores. Also, there was no difference found in the total self-esteem between the groups and a difference in the total reading scores was only found in one of the school districts.

Strengths of the Luftig (2000) study included modifying one control group to attempt to control for the Hawthorne Effect. A weakness was that the different school districts used different standardized tests which did not allow for adequate comparison between the schools. Another weakness of this study is that all of the students were in the same state and of similar economic and industrial backgrounds, which questions the generalizability of the program.

Upitis (2003) researched the effect that the Learning Through the Arts (LTA) program has on youth and also looked at its effects on teachers, parents, administrators and the artists in the first study in Canada that was of the same

type and scope as many others performed in the United States and Europe. The researcher collected data in a three year pretest posttest control group study that used surveys, interviews and test scores from 7,000 Canadian youth in first through sixth grade in six sites across Canada (Vancouver, Calgary, Regina, Windsor, Cape Breton, and Western Newfoundland) and found positive results. Some of the participants attended LTA schools and others attended either schools with no special focus or schools with a special focus besides art, such as technology. The baseline data for the students showed no significant difference in test scores based on the socioeconomic status of the students.

After three years of the study most of the measures for math and language that were used in the study showed no significant difference between the different types of schools. Uptis (2003) did find that on one math measure, that of computation and estimation, the LTA schools had significantly higher scores than the other two types. The difference between the scores was of 11 percentile points. The researcher also mentions information that was gained from the surveys and interviews with the students, teachers, administrators and parents. This data revealed that the participants believed that their involvement in the arts helped increase engagement with their learning. The data also mentioned that additional benefits of learning in and through the arts include emotional, social, cognitive and physical benefits.

The types of measures used to gather data for language and math were not mentioned in the study. The gender distribution and ethnic diversity of the

participants also were not given in the article. Strengths of the study include that a large number of participants and multiple sites being used from across Canada.

In a modified posttest-only control group study, the Solomon R. Guggenheim Museum (2007) also investigated the impact of the Learning Through the Arts (LTA) curriculum on the attitudes of students about school and reading, their ability to talk about art and texts, and the test scores of the students on a city wide English Language Arts Test in New York. The research included 605 students in the Bronx and Queens and found differing results for the areas investigated. In 2004-05 and 2005-06, third-grade classes in P.S. 86 (Bronx) and P.S. 148 (Queens) that participated in LTA were randomly assigned to one of two groups; groups that were tested after a 20 week LTA program experience – to gauge the program's effect on students (Treatment group A), or groups tested after they experienced the 20 week program and their teachers participated in LTA professional development – to gauge the effects of the professional development on students and teachers (treatment group B).

Solomon R. Guggenheim Museum (2007) also had students in P.S. 94 (Bronx) and P.S. 149 (Queens) serve as the control groups who were tested but did not receive the LTA program. The study included standardized questionnaires, rubric-scored student interviews and rubric scored observations. The researchers found that the LTA did not result in a significant difference in test scores on the New York City English Language Arts test between the treatment and the control groups. A significant difference was not found between the group when comparing their attitudes about school or their attitudes about

reading. A significant difference was found in the number of words that the students in the treatment and control group used during an interview in which they discussed pieces of art. The total interview mean word count for the treatment group was higher (573.3) than the control group's word count mean (500.7). A strength of this study was that the Guggenheim Museum had an outside source, RK&A, do the statistical analysis of the data. However the data collected for this study were all from the same geographic location limiting the generalizability of the study.

In this section two articles (Solomon R. Guggenheim, 2007; Uptis, 2003) examined the positive affects that LTA had on students. Positive effects were also found through the use of another program, the SPECTRA+ program researched by Luftig (2000). The positive effects of integrating the arts into the core academics were found by Schubert & Melnick (1997). The data presented in these studies shows a trend that the arts have a positive impact on the affective development and cognition of youth. The next section has further evidence to support this with research that focuses on how the arts effect at-risk youth.

The Effect of Art Education on At-risk Youth

The research articles that are described in this section all focus on how art affects students who are considered to be at-risk. This section has 14 articles and of those, 12 focus on how the arts affect the youth's affective development. One article looks at how art affects both cognition and affective development. Two of the articles focused on incarcerated youth and only one focused on how

cognition of at-risk youth is impacted by art. Of these articles 13 of the researchers found positive results, one found inconclusive results and none found negative results.

The first two articles that will be described are nation-wide studies, one in the United States and one in Canada, that examine the impact of youth organizations or programs that involve art on at-risk youth. First, in a correlational study to see what impact youth-based organizations in the United States have on youth in disadvantaged areas, Heath (1999) examined 124 youth organizations that served ages eight to 18 and found a positive correlation. The 124 youth-based organizations were from across the nation and were in disadvantaged communities. The organizations were athletic-academic focused, community-service centered or arts based. Everyday life in these organizations was recorded through observations and recordings. The study took place from 1987-1997. In 1994 the National Education Longitudinal Survey (NELS) was taken by a sample of youth organization members.

Heath (1999) narrowed the focus of the study to only the organizations with the arts as the focus. When data from these sites were compared to data from the NELS the youth involved in the arts organizations received higher percentages for perception of self than the NELS youth: feels good about him/herself (92.31 compared to 76.20), feels he/she is a person of worth (90.91 compared to 75.94), and on the whole is satisfied with self (84.62 compared to 69.98).

The NELS survey and the organizations that data was collected from were both nation-wide, however since the socioeconomic background of the NELS respondents were not mentioned it cannot be determined if the groups were equivalent to begin with. Also, gender of respondents and total number of respondents were not mentioned which also makes it hard to determine whether groups were equivalent. The research being taken from organizations from across the country and the large number of organizations being used are both strengths of this research.

Next, in a study that is similar to Heath's (1999), 183 youths from five sites across Canada participated in a longitudinal study to determine the effects of an arts program on the psychosocial functioning of the participating youth in which Wright, et. al. (2006) found positive results. The participants were recruited from Montreal, Toronto, a rural town in Ontario, Winnipeg and Vancouver B.C. to participate in local arts programs that met twice a week for 90 minutes for 37 weeks. The programs were free, and snacks and transportation were provided for the participants. Of the participants in the art program 118 were female, 65 male, 49 were age nine to ten, 110 were age 11 to 12, 19 were 13 to 14, and five were 15 years old. Fifty-nine percent of the sample was Caucasian, 26 percent Aboriginal, 11 percent Black, six percent Asian, five percent Latino, and four percent other.

The programs that Wright, et. al. (2006) studied were divided into three terms that increased in difficulty as time progressed. Each site conducted slightly different projects, but for term one the projects all focused on self-exploration and

building positive relationships among the participating youth. Some of the term one projects included painting, mask making, music, and filming. During term two, the participants chose which medium they wanted to use for their project, and for term three, used all of the acquired skills from the previous terms to create and put on a theatrical performance or present a video production for their community. The youth participants completed self report surveys at the beginning and end of each term that reported on emotions, behavioral conduct (bullying, fighting, vandalism, etc.), self-esteem, prosocial behavior, and hyperactivity/attention deficit. Sociodemographic information and family functioning information were obtained through a questionnaire that was filled out by an adult in the family. Research assistants at each site took observation notes twice per term on each participant and marked them on a five-point response category on joyful participation, social skills, task completion, and artistic skill development.

Wright, et. al. (2006) used data for a comparison group that was taken from the National Longitudinal Survey of Children and Youth (NLSCY), which is an ongoing household survey of the development and well-being of Canadian children. Measures were taken to ensure that the sample from NLSCY did not have statistically significant differences from the data collected at the five art program sites. Through involvement in the arts program the data shows that participation, artistic skill, social skills development and task completions all increased significantly ($p < .01$) over the course of the program. When compared to the NLSCY control group the only significant difference was that the art

program participants had a significant ($p < .05$) decrease in emotional problems. No significant difference was found between the groups for prosocial behavior, conduct problems, or self-esteem. Strengths of this study include that it had equivalent groups to compare, that it measured changes over time to see differences, and that it was a nationwide study. A weakness is that although the study was nationwide the number of participants was relatively low, only 30 to 35 participants per site.

The youth participants for the next two articles were juvenile offenders who were incarcerated. First, the impact that participation in an art workshop has on incarcerated youth was examined by Ezell & Levy (2003). They used multi-method evaluation of participants at six Washington state juvenile correction facilities and found that negative behavioral incidents from participants significantly decreased ($p < .01$), students felt that they learned concrete vocational skills (61.3 percent), and the participants had a lower recidivism rate. The three year study involved numerous participants who volunteered to attend the workshops that ranged from 20 to 55 days. Of these participants only some volunteered to be involved in the evaluation part of the study. Year one of the study had 265 participants in 17 different workshops at six institutions and 86 participants who volunteered for the evaluation. Year two had 117 participants in 11 workshops at six locations and 57 participants in the evaluations. Year three had 41 participants in six workshops at five locations who all completed evaluations.

The participants in Ezell & Levy's (2003) study were ethnically diverse and included Caucasian (48.8 percent), Hispanic (20.7 percent), Native American (15.9 percent), African American (11 percent), Asian (1.2 percent), multi-racial (1.2 percent), and other (1.2 percent). The age of the participants ranged from 15 to 21. The gender of the participants is not given, but in the article it refers to both genders. The workshops that the incarcerated youth participated in had many different artistic themes including: visual arts, creative writing, music, graphic design, photography, cartoon art and collage. The first year of the study was a pretest posttest design measuring how the art workshops impacted the teen's self-esteem, peer relations, cultural awareness, and community identity. Self-esteem and peer relations were measured through self-reports from the participants using a self-esteem scale (coefficient α .74) and a peer-relations scale (coefficient α .81) based on other researcher's work. Cultural awareness and community identity was reported from the staff of the institution. Also, the teachers created learning goals for the workshops and assessed how they felt the participants did on meeting those goals. Due to the fact that the workshops were relatively short, it was hard to recognize change in behavior, self-esteem or peer-relations of the participants.

Years two and three of the Ezell & Levy (2003) research were conducted differently and consisted of qualitative and quantitative instruments that the youths and artists completed and data collected from facility staff and from court records. Skill acquisition was measured through an open-ended survey that the participants completed after the workshop that collected data on "skills learned in

workshops, socio-emotional outcomes from the workshop, self-learning from the workshop, ability to collaborate with other students, and feedback on the workshop” (Ezell & Levey, 2003, p.111). Workshop goals were created by the artists and evaluated on a scale of zero (which indicated that the participants made no progress on the goal) to six (indicating that the goal was completely accomplished). The artist also documented any changes in a participant during the workshop sessions. The comments that were documented by the artist on the participants were analyzed and grouped according to frequency. Some of the changes that were frequently observed in the participants were that they were happy to get a break from their normal routine, that they were open about personal issues, and that they were engaged in their projects and the workshop. The number of violations of rules or misbehaviors was obtained for participants for the month before the workshop and also during the workshop. The data collected from the staff showed a significant drop ($p < .01$) in the rate of incidents involving participants. Recidivism of 24 participants were monitored for six months after their release and a 16.7 percent recidivism rate was found compared to the state rate of 32.9 percent.

Ezell & Levy (2003) acknowledged that a weakness of their study is that the analysis of the recidivism may not be accurate because some participants may have moved out of state or turned 18 during the six months after their release, which would mean that their convictions would not show up in the WA juvenile system from which data was collected. Other weaknesses of the study include a nonrandom sample, and that all of the juvenile offenders were from the

same state. A strength of the study is that it took place over three years which allowed them to modify the study after the first year to get more accurate results. The fairly large number of overall participants is also a strength, however the lower number of participants who volunteered to fill out the surveys impacted the data.

In the next article, Venable (2005) wrote about a one shot case study that his students conducted on an unstated number of at-risk juveniles at the Vigo County Juvenile Detention Center in Terre Haute, Indiana. This one shot case study showed the positive impact creating a mural had on the juvenile offenders. The tracking system at the center showed that most of the juveniles at the facility were white males. Specific data for those that participated in this project was not given.

For the project by Venable's (2005) students, the detainees were asked to make sketches of what they thought the 40 foot mural in the recreation room should look like. Eventually an outer space theme was decided on. Groups of three detainees were rotated from their cells to work on the mural. Each group worked for an hour and then would switch with another group. The detainees volunteered to work on the mural and watched from their cells as the mural was created when they were not participating. From initial sketches to completion the project took 15 visits.

Near the completion of the project, Venable's (2005) students gave exit surveys to the participants which "yielded responses that reflected a sense of accomplishment and pride about their participation" (p.51). Venable (2005) wrote

that “every survey” that the juveniles completed “expressed gratitude and thanks for the opportunity to participate” (p. 52). The questions that were on the survey were not disclosed. Through the surveys and some excerpts from Venable’s students, the overall effect that programs such as this have on at-risk students starts to become clearer.

In an attempt to determine whether participation in an after school fine arts program increased the academic achievement and the school commitment level of African American students who were considered at-risk, Walker (1995) collected data in a one shot case study of 68 students at J.W. Sexton High School in Lansing, Michigan. Fifty-four of the 68 students were considered at-risk. The students involved in Walker’s (1995) study were two Hispanic American females, two Asian American females, four Caucasian females, one Caucasian male, 19 African American males and 40 African American females. The at-risk students were chosen based on recommendations from counselors, parents, teachers and administrators.

A fine-arts after school program was started which involved groups that focused on the different fine arts. Each after school art group also had a study session component. The data collected, which it was not stated what the data was or how it was obtained, was compared to an unidentified control group of students not involved in the fine arts programs.

After the 18-week program in which the students met for two hours twice a week after school, Walker (1995) reported that the participating students were noted for having positive changes at home and in the hallways, having better

relations with peers and being more willing to help out their peers and staff. Forty-five percent of the participating students also received higher grades. The data from the participating students was compared to a control group of students not participating in the program, but the compared information was not in the article. This research was limited, which it states in the article, and since the program was linked with a study session it cannot be determined whether the increase in grades is related to the study session or the fine arts program. Also, since there was not a control group involved in a peer group after school activity to compare, it cannot be determined whether the behavior of the students was related to the fine arts program or the collaborative nature of the program.

The article that is discussed next focused on the effect that art has on the cognition of at-risk students. To determine whether the use of an arts-based curriculum had an impact on the scores of English as a second language (ESL) students compared to the traditional ESL methods, Spina (2006) conducted a pretest posttest control group study with two classes of ESL fifth graders in an urban area Chapter One school. Spina (2006) found that the arts program students greatly improved the quality of their English production/language skills, and the program positively impacted the retention of Spanish language compared to the traditional ESL program students. All of the 63 participants in the study were Latino/a and came from low socioeconomic backgrounds. The pretest posttest that the participants took was to assess their ability in Spanish, English and English reading.

The students involved in Spina's (2006) study were assigned one of two classes to be in for the year. Due to missing data on some students, data for only 30 students in the arts-based class and 28 students in the comparison group were obtained. It was found in the pretest scores that the arts-based ESL class had higher scores that averaged between six and seven points higher on the English pretest compared to the traditional ESL group. This factor was controlled for in the analysis. The students in the arts-based program and the comparison ESL class each spent the equivalent of five to six hours a week in their respective ESL programs. The comparison ESL group did receive a 40-minute a week art class, but the art did not relate to the course work that the students were learning. The arts-based ESL class was receiving art lessons based on their course work in their program.

Notes on student behavior and time on task were recorded. Based on the time on task percentages found, only 60 to 70 percent of the students were observed as on task during the reading segments of their learning for both groups and for the comparison group's art class. Spina (2006) stated that this factor may play a part in the findings and future research should take this factor into account. Through classroom observations, and interviews with the teachers and principal it was determined that the use of English and Spanish language for instruction was equivalent for both groups.

Based on the pretest posttest scores, Spina (2006) found that the arts-based curriculum class received significantly higher ($p < .0383$) scores on the Spanish posttest. The arts based curriculum class also showed greater

improvement on their English and reading scores compared to the traditional ESL group. The traditional ESL group showed a significant loss ($p < .0001$) in their Spanish posttest. Strengths of the study are that it accounts for maturation and regression of the participants. The fact that the participants of the study were not randomly selected is a weakness for the research.

In a one shot case study, Cho (1996) provided four three-hour art lessons for 20 students ranging in age from eight to 15 at San Pedro Academy in Los Angeles and found that art activities would positively motivate the students to succeed and raise their self-esteem. San Pedro Academy is an all male school for students who have behavioral and/or learning disabilities. The researcher provided three different activities for the students over the four weeks. The first activity was self-portraits, the second was a collage, and the third activity was mask-making. There were two teachers from the school, two counselors and the art instructor in the room with the 20 students. Observations, written comments and interviews were recorded to see how the students responded to the art activities.

After the four art sessions, the participants in Cho's (1996) study wrote down comments about their experiences with the art activities. The comments revealed the students became more relaxed in the art making process and that this relaxed feeling helped them to "become more involved in school" (Cho, 1996, p. 55). During the teacher interviews, the student's teachers claimed that the students who participated in the art classes "were more willing to participate in academic activities" (p. 55). The researcher claimed that programs that provide

individual assistance and small classes “can motivate at-risk children to engage in positive self-expression and thereby gain self-respect” (p.55).

The next research took place in Colorado. Through qualitative research collecting field notes, surveys and interviews at Western Hills Elementary in Denver, Colorado, Biagi (2001) found that creating a school art gallery had positive results on the students of the school, the school itself and the art program. Western Hill Elementary had 618 students when this research was conducted and had students in kindergarten through fifth grade. The ethnicities of the students were Latino (371), White (196), African-American, Asian American and Native American (50 students comprised these three ethnicities). Sixty-eight percent of students at the school were considered low income, and 37 percent of the students had limited English proficiency. Additionally 12 percent of the student body received special education services.

Biagi (2001), who was the art teacher at the school, came up with the proposal to create a school art gallery. The proposal was accepted and the entryway to the school was repainted, frames for the art were bought and student art was selected to be displayed for the opening of the gallery. The teacher/researcher chose one artwork from each of her 24 classes and was sure to equally represent both genders and all of the ethnicities in the school. Invitations for the opening and letters home to the students whose art was displayed were written in English or the student’s native language. The surveys and interviews revealed that the art gallery had an effect on the students by increasing their self-esteem, increasing their motivation, and increasing their

appreciation of others. It was also noted by the researcher that the gallery helped to reach the high-risk students in the school in a way that hadn't been done before. The effect that the gallery had on the school was revealed through the surveys and interviews as well. Some effects on the school were the physical change made to create the gallery that enhanced the entryway of the school, increased school pride, and enabled the school to portray the diversity of its students. The art program benefited from the gallery because it increased the awareness of the program, helped motivate the students to participate in the classroom, and helped to give the teacher experience. Strengths of the study include participation from the whole student body, and multiple methods of collecting data.

Next, Wexler (2002) provided case studies for two adolescent boys from Harlem who both had physical disabilities that showed involvement with the Harlem Horizon Art Studio (HHAS) created improvement in their disability. HHAS is run by Bill Richards who is a professional artist who acted as a mentor to the students who attended HHAS. He provided them art supplies and encouraged them to paint from their imagination. The medium of watercolor was the first medium that the young artists explored; then they moved on to acrylic paints. The HHAS gave a supportive environment that had both "able-bodied and disabled peers" (p. 349). Many of the youth that create at the HHAS were not expected to make any significant improvements in their disability by doctors.

One adolescent that proved doctors wrong was Moses, a teenage boy who at age nine had become a quadriplegic. Wexler (2002) wrote that after his

accident, Moses had difficulty with concentration, and when he started painting at HHAS he had difficulty maneuvering the paint brush. After about six months Moses had improved both his skills with the brush and his concentration. After painting at the HHAS for a while, Moses was working on the sky section of a painting that he could not reach from his chair. Moses stood up to work on it. Moses is now walking without support and his emotional, physical and psychological life has improved.

The second case study provided by Wexler (2002) was for Ben, who had spina bifida and was in a wheelchair. Ben's case study is not as remarkable as Moses', but showed how the freedom of creating art can help change an individual's outlook on life and allow for choices in a structured world. Ben lived with his grandmother who was helping to raise him, his two sisters, his two brothers, two nephews, and two infant nieces because his mother had been found to be unfit. Due to spina bifida, Ben's life had to be structured and planned so that his basic needs could be cared for. He was offered little room for choices in his everyday life, but the HHAS offered him a place where he could make choices. HHAS also provided him a place to interact with peers. Wexler (2002) claimed that the studio shifting the focus away from the disability and to the individual's role as creator helped Ben and that his participation in the HHAS gave him a "new interest in living his life" (p.350). In a personal communication that Wexler used in the article, Ben stated that "the art studio gave me a chance to expect the best of myself" (p.350).

These case studies claimed that it was the environment and the art that helped with the changes described in the two boys' stories. Wexler (2002) does not mention the factors of time lapse or of the boys maturing that could play a part in the changes described.

The research presented in this next article was conducted to see whether an anti-bias curriculum that focused on the arts helped youth to move forward on the continuum of anti-bias. Butler (2002) had the anti-bias curriculum presented over four months at several schools in a pretest posttest design study, and found positive results. One hundred twenty-three responses to a questionnaire that student participants completed at the end of the study were analyzed as well as perceptions that seven teachers gave during a focus group discussion at the end of the year. The anti-bias curriculum that was presented involved learning about the art of First Nations people, including their legends, dance, and visual art. Students participated in discussions, journal writing, role-playing, problem-solving, and creating a musical drama to perform that included the issues that they learned about.

Butler (2002) found that almost all of the participant's behaviors and attitudes improved through the arts focused anti-bias curriculum. On the posttest, 73 of the 123 students "articulated a definite attitude change toward Native Canadians" (p.41). A change in attitude toward people no matter what their race was cited by 33 students. After the curriculum had been presented, five students who had not disclosed their Native heritage in the pretest disclosed their heritage in the posttest questionnaire. The researcher claimed that the

personal connection that the participants made with the arts that were explored was a contributing factor in the success of the program. The teacher discussion revealed that the concepts of anti-bias, critical thinking, critical viewing skills and First Nations were regularly taught, but that by bringing in the arts and combining the concepts the youth participants had more distinct results with this program than in the past. This research could have been strengthened by having a comparison group that covered the same topics without the focus on the arts to see whether it was the way the information was presented that affected the views of the participants or if by having the focus on the arts the views had a more distinct change.

The next article explains how a qualitative study was used to provide an outlet for 733 fourth through eighth graders to produce motivational drawings using the popular media of comic books and provide an alternative way to use literacy skills. Bitz (2004) found overall trends in the content of the stories created by the under-served youth. The 733 NY youths “sketched, plotted, wrote, and designed original comic books” between the months of October and December, 2002 (Bitz, 2004, p.33). The program involved 48 teachers and 33 different sites in the NY area. Five hundred thirteen of the youth featured themselves in their comic books and most expressed their daily life experience in their stories.

The stories that the youth created in the study conducted by Bitz (2004) had morals to them and the themes that many focused on were gang violence, drug abuse and relationships with the opposite sex. At the end of their stories

their character was alive, but often other characters in the story that were either real or fictitious died or were put in jail. This project allowed the youth an outlet to share their daily life and fears that they face. The project also allowed the reader of the comics to get a glimpse into the everyday life of these youth living in hardship.

A one-group pretest posttest design, with an additional follow up posttest six months later, that Wallace-DiGarbo & Hill (2006) conducted to see how an art-based intervention program affected the self-efficacy of 12 seventh and eighth graders at a learning community in the mid-Atlantic region of the United States is the research described next. The learning community was established for 55 truant students who were considered at-risk, and the research did not find statistically significant data. All 55 students were invited to participate in the project and 19 received consent to participate. Of these 19, 12 students attended the classes with “some regularity” (p.120). The 12 participants consisted of 11 females and one male. Eight of the participants were Hispanic, two were African-American, one was of European descent and one was biracial.

The project conducted by Wallace-DiGarbo & Hill (2006) consisted of ten class sessions over six weeks. To accommodate the student’s schedules, the five seventh grade students and the seven eighth grade students met separately. Attendance at the classes varied and no one attended all ten sessions. The sessions included creating a cover page for journal entries, mask making, learning about mandalas and creating a mural.

Wallace-DiGarbo & Hill (2006) collected data through post session discussions, and assessment instruments. The instruments that were used included the Adolescent Self-Assessment Profile (ASAP) and the Outcome Inventory (OI). The ASAP is a self report that is used to recognize risk factors by how the 225 items are answered. The ASAP was used as the pretest and the OI, which retests the risk factors determined in the ASAP, was used as the posttest and for the six month follow-up. Data from all three assessments was collected for six participants: Four 13 year old Hispanics, one 14 year old who had both Black and Hispanic ethnicity, and one 15 year old African American. For Family Adjustment the Mean/SD raw scores for pretest were 5.00/3.87, posttest were 3.67/3.20, and follow-up were 4.00/2.31. The Mean/SD raw scores for Psychological Adjustment were 9.67/6.32 for pretest, 11.17/3.53 for posttest and 8.83/3.62 for follow-up. The students also showed improvement in their attitudes – Pillai's Trace, $F(2, 4) = 5.05$, $p = .078$. At the follow up only an average of 30 percent were better adjusted on the family environment scale than participants one and five. The data did not show any significant findings, but did show trends in the direction that the researchers were hoping. Some weaknesses of the study that the researchers stated were that the number of participants was limited, there was no control group, there was not random selection, and attendance was inconsistent, all of which could contribute to the weakness of the statistical data.

The next article explains how in a West End neighborhood of Cincinnati, Ohio, which is a primarily low income African-American neighborhood in an

urban setting, Hutzell (2007) conducted a participatory action research study involving art. A positive effect on social change and perception of community of those who participated was found. The project was implemented in the spring and summer of 2004 and involved 16 to 25 youth ranging in age from ten to 16 from the Arts Consortium and the Lincoln Community Center, both which are located in the community that the project was conducted in. The youth from the Arts Consortium had had previous arts exposure through their summer program and the Lincoln Community Center youth had fewer experiences with the arts.

Hutzell (2007) had the participants each produce a drawing that represented their idea of community so the researcher could get an idea of their “personal sense of community” (p.304). These drawings were then used during interviews with each participant discussing their sense of community. An asset-based mapping exercise was used to have the participants examine the community and “locate good things already existing in the neighborhood” (Hutzell, 2007, p. 304). Based on the drawings, interviews and mapping exercise, a concept and location was determined for two murals. The murals were painted on the retaining wall of a neighborhood park and the side of a house by the park. In addition to the youth that participated in the study, a variety of adults played roles ranging from instructing or gaining permission for painting the murals to helping to paint and encourage the youth. After seven weeks of planning and two weeks of painting, the murals, which represented the youth’s ideal community, were presented to the community and several local news stations covered the event.

The youth involved in the project conducted by Hutzler (2007) expressed pride in their work; and the mural helped to take the park back from the drug dealers who had been using it and gave it back to the children of the community. A strength of the study is that the participants played a role in determining the assets that were in their community and where they wanted to paint the mural. A weakness of the study was that the number of participants was low.

Catterall & Peppler (2007) used a pretest posttest control group study on 179 inner city nine and ten year olds from Los Angeles and St. Louis to examine whether participation in an arts program had an effect on children's views of the future and student's ability to control their actions and set goals for what happens in their future and then follow through to make the goal happen. The data collected showed that there was a positive effect on students participating in visual arts in regard to self efficacy and originality. The students in LA were 97 percent Hispanic, 97 percent qualified for publicly subsidized school lunches and had moderately low achievement levels. The students in St. Louis were 100 percent African American, 99 percent qualified for subsidized meals, and five to ten percent of the school students received proficient level or better on the state's standardized achievement tests for language and math.

Catterall & Peppler (2007) had a treatment and a control group in each city that were given a survey consisting of a 13 item self-concept section, a seven item self-efficacy scale, and two items for internal versus external attributions for success. These surveys had a four point Likert scale to fill out for each question. Surveys also contained four point scales for elements of

creativity based on the Torrance Test of Creativity with modified questions for elementary age students. The LA students received art class at Inner City Arts for 90 minutes twice a week for 20 weeks and the St. Louis students received art class at Center for Contemporary Arts once a week for 1 hour for 30 weeks as their treatments. Observations were done at the art class and in the home classrooms. Student's responses to art instruction were documented at least once a week and control group classes were observed every two to three weeks.

Using the data collected from the surveys Catterall & Peppler (2007) found that the students who participated in the visual arts had a greater gain (53.9) in self efficacy compared to the control group (35.6) The significance of the difference was $p < .001$. The students in the treatment group also had a higher percentage gain in originality (54.9 percent) compared to the students who did not receive the treatment (32.9 percent). The students in both cities had similar socio-economic background, but they were not a random sampling. With the way that the academic test scores were reported, it cannot be determined whether the schools were equivalent academically, and the ethnic backgrounds of the two cities were different. Catterall & Peppler (2007) claimed that with the gains in self-efficacy and originality the children will be more optimistic about their future and the increase in originality can help the students generate unique ways to overcome the obstacles in their future which is a positive result for the question they set out to answer.

The 14 articles in this section all focused on the effect that the arts have on at-risk youth. Not all of the articles reviewed in this section provided

conclusive data, but there is enough data when they are put together to show a positive trend. Two studies showed the positive effects that art-based youth organizations have (Heath, 1999; Wright, et. al., 2006), and two studies found how art positively effects juvenile offenders (Ezell & Levy, 2003; Venable 2005). Walker (1995) found how an after school arts club can positively effect the behavior and academic achievement of students. Spina (2006) found the positive effect that an arts-based ESL program had on non English proficient students. The remaining eight research articles (Biagi, 2001; Bitz, 2004; Catterall & Peppler, 2007; Cho, 1996; Hutzler, 2007; Wallace-DiGarbo & Hill, 2006; Wexler, 2002) all showed how the arts positively effect the affective development of at-risk youth. The data provided in this section is extensive and shows that at-risk youth benefit from the arts.

Summary

Chapter one presented the rationale for the context of the investigation. In chapter two art education's history was reviewed, including the different models of teaching art.

This chapter reviewed 30 research articles that focused on either how the arts affect cognition or the effect of the arts on the affective development of youth. The articles showed that there is a benefit to providing youth, especially at-risk youth, an art education.

The first section in this chapter had 12 articles that demonstrated how the arts positively affect cognition of youth. The research discussed in this section showed varying results, but taken as a whole shows the positive results that

involvement in the arts has on SAT scores (Vaughn & Winner, 2000), critical thinking skills (Lampert, 2006), decision making (Woodman, 1997), and academic achievement (Bezruczko, 1997; Catterall & Waldorf, 1999; Lopez, 2000; Wilkins, et. al., 2003). Edens & Potter (2001; 2007) conducted two correlational studies that found a positive correlation between drawing skills and ability in math and science. Nelson, Martin & Baldwin (1998) also conducted a correlational study and positive results were found. Burton, Horowitz & Abeles (2000) and Housen (2001) had varying results in their studies to determine if transfer occurs between the arts and other academic subjects.

The next section in this chapter had four articles that demonstrated the positive effects that art has on both cognition and affective development of youth. The impact of two different arts-based programs was explored. Solomon R. Guggenheim (2007) and Uptis (2003) both explored the LTA program, and Luftig (2000) explored the SPECTRA+ program. Uptis (2003) showed positive results, and Solomon R. Guggenheim (2007) had varying results. The last article in the section showed the positive impact that integrating the arts into the core academic subjects had on students (Schubert & Melnick, 1997).

The last section focused on how the arts positively affects at-risk students has 14 articles whose locations span the width of the United States and Canada. Heath (1999) and Wright, et. al. (2006) demonstrated the positive impact that youth organizations focusing on the arts have on at-risk youth. Ezell & Levy (2003) and Venable (2005) showed the positive impact that art has on juvenile offenders. Walker (1995) demonstrated the positive impact that after school arts

clubs have on youth's behavior and academics, and Spina (2006) found positive results when examining the impact that an arts-based ESL curriculum has on students. The remaining eight articles in this section all focused on affective development of at-risk students and their involvement in the arts. Bitz (2004) had at-risk youth creating comic books, and Catterall & Peppler (2007) showed the positive impact that an arts program had on minority youth in L.A. and St. Louis. Cho (1996) demonstrated how involvement in the art increased self-esteem, and Wallace-DiGarbo & Hill (2006) showed how art involvement positively effects student self efficacy. How art positively affects a student's perception of community was found (Hutzel, 2007) as well as how art can positively affect the school community (Biagi, 2001). Butler's (2002) research showed how an anti-bias curriculum focusing on art had a positive impact on students, and Wexler (2002) showed the positive impact that art had on two youth at the Harlem Horizons Art Studio.

The 30 research articles that were examined investigated how art positively affects different aspects of the lives of youths. The findings were not always conclusive and had varying results, but when combined overall they showed positive trends linking arts activities to the development of learners.

Next, chapter four offers some conclusions to the overall findings from the 30 articles, what implications the findings have in the classroom, and some suggestions for further research.

CHAPTER 4: CONCLUSION

Introduction

Chapter one introduced the rationale for this investigation. The United States' focus on student achievement based on standardized test scores and the implementation of No Child Left Behind has had a negative effect on the education system. There is a debate over whether art can increase academic achievement, or help at-risk students stay in school. The visible measuring-stick that society uses to see if schools in the United States are producing the smartest students in the world is standardized test scores. The United States also expects schools to produce well-rounded adults to enter into the work force. To see if these standards are being met, both the cognition and affective development of today's youth need to be examined. Therefore, this paper explored the impact of art education, specifically visual art education, on the cognition and affective development of students.

The history of art education was presented in chapter two. The foundations of art education were established by Plato and Aristotle. Art has been seen through the centuries as important by different groups within society. Through history art has been taught in many ways: by apprenticeship, in guilds, and at academies. In more recent decades some of the styles of teaching art have been: Discipline Based Art Education (DBAE), Neo- DBAE, and Visual Cultural Art Education.

Chapter three reviewed 30 current research articles regarding art education. The research fell into two different realms: how art education affects cognition and how art education influences the affective development of youth. The articles were divided into three sections: The effect of art education on cognition, the effect of art education on cognition and affective development, and the effect of art education on at-risk youth. The researchers had varying results, but an overall positive trend was found. This chapter will provide a summary of the findings from chapter three, implications for the classroom, and suggestions for research in the future.

Summary of Findings

The Effect of Art Education on Cognition

The 12 research articles that examined the effect of art education on cognition consisted of nine correlational studies, two longitudinal studies and one pretest posttest study. Eight of the studies had positive results and four had variable or partial results.

Burton, Horowitz & Abeles' (2000) study could not find clear evidence of transfer between the skills learned from art to other subject areas, but Housen (2001) did find evidence of transfer from the Visual Thinking Strategies program to other subject areas. Wilkins, et. al.'s (2003) research did not find that the amount of time spent in the arts affected the test scores of the students in Virginia. However, other research found that the test scores of those who had art education were higher than those without art education. The results found by Bezrucko (1997), Catterall & Waldorf (1999), Vaughn & Winner (2000), and

Wilkins, et. al. (2003) showed that students who had art education had higher scores on standardized tests, and, most often, that students had higher scores on the math sections of these tests. Lopez (2000) found a positive correlation between art education and academic achievement. Both Edens & Potter (2001) and Nelson, Martin & Baldwin (1998) found positive correlations between drawing and learning in science. Also, Edens & Potter (2007) found that the spatial understanding that students learn through drawing can positively affect the problem solving ability of students. Woodman (1997) found varying results on research that involved students who had an increased art criticism process in the classroom in an attempt to improve decision making. Additionally, Lampert (2006) found that youth who have had art education have higher critical thinking skills than those without. Taken as a whole it would appear that art education does have some effect on the cognition of youth. The exact amount of the effect has yet to be determined by available research.

The Effect of Art Education on Cognition and Affective Development

Two of the four articles that focused on both how the arts affect cognition and the impact art education has on the affective development of youth investigated the Learning Through the Arts (LTA) program's effect. Both Solomon R. Guggenheim Museum (2007) and Uptis (2003) found that LTA positively affected the affective development of youth. The Solomon R. Guggenheim Museum's (2007) study took place in multiple sites in New York, and the Uptis (2003) study took place in multiple sites across Canada. The LTA

program showed positive results in multiple settings in two different countries and in multiple socio-economic settings and therefore appears to be a program that can be used in a variety of settings to bolster the affective development of youth.

A third article looked at a different art curriculum's impact on the affective development of youth. Luftig (2000) found that the SPECTRA+ program helped to raise the creative thinking and originality of the participants based on scores from given tests. This research, along with the two research articles that examined the LTA program, appear to show a trend that youth involvement in the arts positively affects the affective development of youth as well as their cognition.

Schubert & Melnick (1997) found positive results for integrating the arts into other subjects affects the cognition and affective development of youth. The researchers claimed that the integration helped the student's attitudes on schooling, helped them see connections between the subjects which allowed them a greater understanding, and the students increased their self-concept and took on more leadership roles. When all of these studies, which took place across Canada and in rural, suburban and urban cities in the mid west and eastern United States, are taken together, it shows that art education did have a positive effect on youth's cognition and affective development.

The Effect of Art Education on At-risk Youth

The research that specifically focuses on at-risk youth explored in chapter three consisted of 14 articles that used various models of research. Of these 14 articles, only two focused on how art education affects cognition. Based on this,

it appears that the effect of art on the affective development of at-risk youth is researched more frequently than how art education affects the cognition of at-risk youth.

Two of the 14 research articles reviewed were nationwide studies of how after school art programs affect youth who are at-risk. Heath's (1999) study was conducted in the United States, and Wright, et. al.'s (2006) study took place in five sites across Canada. Both studies showed that the programs that involved the arts positively influenced the affective development of youth. The aspects of affective development that these studies researched were task completion, emotions, feels good about him/her self, feels he/she is a person of worth, and on a whole is satisfied with self. Both studies compared the arts education students to national surveys of youth. Heath (1999) compared the art program youth to youth in other programs and found more distinct results in the arts groups.

Venable (2005) and Ezell & Levy (2003) both collected data on the impact that art education had on incarcerated youth. Both studies claimed that the youth enjoyed participation in the projects. Ezell & Levy documented how the youths' behavior improved through involvement in the program and how the behavioral effects may lead to a lower recidivism rate.

Two case studies were presented by Wexler (2002) that showed that art had a positive impact on two severely disabled teens that doctors had given up on in Harlem. Catterall & Pepler (2007) showed how minority students in Los Angeles and St. Louis who had additional art lessons increased the student's

ability to control their actions and to reach goals that they set. The researchers also found that art helped to motivate students succeed, raise self-esteem (Cho, 1996), and raise self efficacy (Wallace-DiGarbo & Hill, 2006). Butler's (2002) research on the implementation of an arts based anti-bias curriculum showed positive results.

Creating comic books (Bitz, 2004), learning English as a second language through an arts based curriculum (Spina, 2006), creating a school art gallery (Biagi, 2001), and creating a community mural (Hutzel, 2007) were all ways that the affective development of at-risk youth were positively impacted by art. The academic grades of participants in Walker's (1995) research rose (the subjects of the improved grades were not reported and the amount of the improvement was not reported) and they were noted for having improved behavior and attitudes at home and at school after their involvement in after-school art clubs. This research gives various ways that the arts can benefit youth. The studies were conducted with multiple ethnicities, in multiple locations across two countries and using various research methods. Taken as a whole, the research from this section of chapter three indicates that the affective development of youth is positively impacted by art education.

Classroom Implications

Art education provides a safe place for students to explore and problem solve (Edens & Potter, 2007; Wexler, 2002; Woodman, 1997). It gives them the opportunity to work on communication skills through discussion and critiques of art (Solomon R. Guggenheim Museum, 2007; Woodman, 1997). The research

provided in chapter three gives evidence for how art education can help with self efficacy (Lopez, 2000; Wallace, DiGarbo & Hill, 2006), social interactions (Ezell & Levy, 2003; Walker, 1995) and cognition (Bezruczko, 1997; Catterall & Waldorf, 1999; Edens & Potter, 2001; Nelson, Martin & Baldwin, 1998; Vaughn & Winner, 2000) . The arts provide a place for the child who is struggling to succeed (Bitz, 2004; Ezell & Levy, 2003; Hutzel, 2007; Spina, 2006; Veneble, 2005; Walker, 1995; Wallace, DiGARbo & Hill, 2006; Wexler, 2002). By providing art education, either integrated into what are considered the core subjects or in a specialized class, students are provided the opportunity to use their imagination and fine and gross motor skills in different ways. Also, students who participate in art may experience gains in cognition, and therefore improve the highly prized test scores (Bezruczko, 1997; Catterall & Waldorf, 1999; Housen, 2001; Luftig, 2000; Vaughn & Winner, 2000). With the current focus on standardized tests as a tool for NCLB this is useful information.

At-risk or hard to reach students are always a concern for teachers. In chapter three multiple research articles were reviewed that gave evidence of how art education can help these students by boosting their cognition and affective development. Schubert & Melnick (1997) found that art education helped to increase youth's attitudes about school and showed a decrease in absenteeism. Venable (2005) and Ezell & Levy (2003) showed that the incarcerated youth enjoyed the opportunity to create. Taking the research done by Schubert & Melnick (1997), Venable (2005) and Ezell & Levy (2003) together it would appear that if art education was provided to more students on a regular basis the harder

to reach students may become more motivated to attend school. By attending school more often the students would have more opportunity to learn. Also, some say that one of the reasons that students skip school or drop out is due to the feeling that they are not good at anything. Art education gives many of these students an opportunity to find something that they are good at.

In addition, Spina's (2006) research showed that using art can help students who are learning English, and Hutzler (2007) and Biagi (2001) explored ways that youth artwork can aid the community. Increasing student/community involvement increases safety and accountability. All of the research presented in the review of chapter three can be helpful in justifying the inclusion of art education in a test-driven school culture.

Suggestions for Further Research

The research presented in the previous chapter covered a wide geographic, socio-economic range and had participants from various ethnic backgrounds. The national studies that were explored were most useful. However, three of the four studies with multiple sites spanning a country researched only how art education affects the affective development of youth. The only national survey that examined cognition was a correlational study involving the SATs (Vaughn & Winner, 2000). Additional research that takes place in multiple settings across the country, and in rural, suburban and urban locations is needed to get a better understanding of which students and what areas most benefit from art education.

More research on how art education affects the cognition of at-risk youth should be conducted as only three articles that were in the literature review included the cognition of at-risk youth as part of their study. Also, as a few of the researchers wrote that irregular attendance of participants affected the data collected, further research on how the arts affect academic motivation, and the attendance of at-risk students would be beneficial to the body of research on arts education.

Summary

The focus of the United States on standardized tests and the implementation of No Child Left Behind have had a negative effect on the art education of today's youth. Budgets are being cut as well as art programs. There is a debate about how to best educate the youth of today. One side of the debate claims the focus should be on the core academic subjects of reading, writing and math and the results should be shown through test scores. Others believe that the leaders of tomorrow need a well-rounded education that includes the arts in addition to the core subjects that are currently tested. Through the centuries art education has been viewed as important by different groups within society. There has been debate about who should receive art education and if art education should even be offered. How art education, specifically visual art education, effects the cognition and affective development of youth is a large factor in this debate.

Thirty research articles were reviewed to determine the effect that visual art education has on youth. The research fell into three categories: the effect of

art education on cognition, the effect of art education on cognition and affective development, and the effect of art education on at-risk youth. The research took place in cities across the United States and Canada. The positive effect of art education was seen in students of various grade levels, socioeconomic status, ethnicities, and community settings. A positive effect was found when a current art program was enhanced, an art program was implemented, and when art was integrated in to the core academic subjects. These studies show that the arts do have a positive impact on the cognition of students and show that keeping the arts in schools will benefit the students as well as the test scores. The data presented in these studies shows a trend that the arts have a positive impact on the affective development and cognition of youth.

Art education provides a place for students to explore and problem solve (Edens & Potter, 2007; Wexler, 2002; Woodman, 1997), work on communication skills through discussion and critiques of art (Solomon R. Guggenheim Museum, 2007; Woodman, 1997), have and improve on social interactions (Ezell & Levy, 2003; Walker, 1995), and improve cognition (Bezruczko, 1997; Catterall & Waldorf, 1999; Edens & Potter, 2001; Nelson, Martin & Baldwin, 1998; Vaughn & Winner, 2000) . The arts provide a place for the child who is struggling to succeed (Bitz, 2004; Hutzler, 2007; Ezell & Levy, 2003; Spina, 2006; Veneble, 2005; Walker, 1995; Wexler, 2002; Wallace, DiGarbo & Hill, 2006), and can help with self efficacy (Lopez, 2000; Wallace, DiGarbo & Hill, 2006),

By providing art education, either integrated into what are considered the core subjects or in a separate art class, students are provided the opportunity to

use their imagination and fine and gross motor skills in different ways. Also, by providing art the cognition of the students may improve and therefore test scores may improve as well (Bezruczko, 1997; Catterall & Waldorf, 1999; Housen, 2001; Luftig, 2000; Vaughn & Winner, 2000). With the current emphasis on standardized tests this is useful information.

At-risk or hard to reach students are always a concern for teachers. Multiple research articles were reviewed that gave evidence of how art education can help these students by helping their cognition and affective development. Taking the research done by Schubert & Melnick (1997), Venable (2005) and Ezell & Levy (2003) together it shows that if art education was provided to more students on a regular basis the harder to reach students may become more motivated to attend school. By attending school more often the students would have more opportunity to learn. Also, some say that one of the reasons that students skip school or drop out is due to the feeling that they are not good at anything. Art education is a safe place that many of these students can discover something that they are good at.

Further research needs to be conducted and should include nation-wide studies that investigate how art education impacts the cognition of youth. Additional research that takes place in multiple settings across the country, and in rural, suburban and urban locations needs to be conducted as well. Research could establish an understanding of which students and what areas most benefit from art education. Furthermore, more research on how art education affects the

cognition of at-risk youth, and on how art education impacts motivation and its impact on attendance should also take place.

Inspired by the focus on standardized tests and the reductions in art education since the beginning of No Child Left Behind, this study researched the impact of art education on the affective development and cognition of youth. A historical overview of art education that included the major methods of teaching art in the United States was outlined. Thirty research articles were examined to find the effect of art education on the cognition and affective development of students, including at-risk students. The classroom implications of the examined research were explored as well as suggestions for further research. Trends were found in the research that led to the author's conclusion that art should remain in or be put back in schools.

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