

# HOW THE ARTS IMPACT ACHIEVEMENT IN LANGUAGE ARTS

by

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## ABSTRACT

Ancient civilizations often intermixed daily life and artistic expression, however Europeans who started schooling systems throughout colonies separated the two. In modern society, researchers revisit the idea of how art impacts daily school life. This paper seeks to address, “What effect do the arts have on academic achievement in language arts?” Most of the studies analyzed involve adolescent subjects. Studies show that arts exposure improves student self confidence, competency in the arts, and proficiency on standardized tests in reading, writing, and vocabulary skills. Students who experience the arts exhibit a correlation to higher school grades and increased engagement in school than students in non-arts infused settings.

**KEYWORDS:** arts, arts exposure, academic achievement, language arts, adolescent, secondary, middle school

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## CHAPTER 1: INTRODUCTION

### **Introduction**

Learning theorist John Dewey emphasized that students should have enriching, concrete experiences to build upon. Some students thrive when they are given opportunities to interact with their environment in an artistic way. Such creative opportunities could occur during academic courses not usually associated with the arts. The arts are a tool, even when a teacher's main goal is to educate students regarding a literary device, a cycle that occurs in nature, the significance of an ancient culture's contributions, or the concept of fractions. Although contemporary American schooling often segregates the arts and arts education from other core curriculum, this need not be the case. The artistic and the logical benefit from greater connection as Dewey described. According to Dewey (1934), "The thinker has his esthetic moment when his ideas cease to be mere ideas and become the corporate meanings of objects. The artist has his problems and thinks as he works" (pp. 15-16).

As Dewey illuminated, many others agree that a connection between artistic expression and other intellectual pursuits exists. This paper seeks an answer to the question: What effect do the arts have on adolescent academic achievement in language arts?

### **Rationale**

As teachers seek ways to better engage students in the classroom, and school districts struggle to get the most bang for their bucks (or even more bang with fewer bucks), educators such as Gullatt (2007) push art as the answer. Students

with art experiences use higher-order thinking skills, risk-taking behaviors, become more independent learners, and increase their problem-solving skills, and creativity, according to Gullatt (2007).

An intriguing aspect of arts education is that it involves a creative process that seems so transparent when compared to other disciplines. Dewey (1934) described artwork as a manifestation of what the artist is thinking, “and the terms lie so close to the object that he is producing that they merge directly into it” (p. 16). The way art reorganizes concepts of the world by showing imaginative new possibilities promotes higher thought processes, allows students to explore ambiguity, and helps students recognize multiple perspectives. Arts integration with social studies, science, math, language arts, reading, and writing adds new meaning, insight, and excitement to learning (Wachowiak and Clements, 2001).

A general list of rationales for art to be integrated with other core disciplines in American public schools included in *Emphasis Art* relates not only to language arts achievement, which is the focus of this literary review, but academics in general. Some of these rationales are that art reflects culture, serves as a form of communication, makes the ordinary extraordinary, promotes higher thought processes, and enhances literacy in several forms of thought. Since art reflects the time, place, and circumstances in which it was created, it transmits the cultural identity of the producer. This rationale helps students better identify aspects of their own culture as reflected in what they produce, as well as how another culture is portrayed.

Eisner (1998) debated that several studies supporting how art improves students' cognitive abilities in other subject areas were statistically non-significant, some used music as a behavioral reinforcement not as an art form, and he theorized that the studies did not illustrate why arts courses improve academic achievement. It could be that, as Eisner stated (1998), "students in arts courses enjoy school more" (p. 12). Eisner disagreed that artistic expression should be pursued for its collateral benefits if it was to be forsaken for its own advantages. In addition, Burton (2000) argued that transfer, the idea of cognitive benefits from arts exposure, need not go one direction from the arts to other academics. Burton argued the learning from other disciplines could just as easily "travel back to enhance arts learning" (p. 228).

One challenge to incorporating fine arts into some schools, however, is how this form of expression has come to be tied to the elite of society. The profile of families who obtain piano lessons, are 80% white, upper-middle class, and well educated, explained Costa-Giomi (1999). She and others theorized that it is possible those who desire to pursue music instruction could genuinely differ from those who do not. If art becomes embedded in classroom activities, Costa-Giomi questioned whether it will retain its ability to inspire and spawn imagination, or whether it will become another humdrum course students learn to acquire along with their reading, writing, and arithmetic.

### **Historical Background**

Premodern societies integrated the arts into daily life (Wachowiak and Clements, 2001). People wove detailed patterns into blankets and baskets. They

adorned clothing with beads, shells, and feathers. Grasses, berries, and charcoal served as pigments for cave paintings. Religious events and social gatherings regularly included dancing and singing, sometimes even storytelling and dramas (Wachoviak and Clements, 2001, and Schwantes, 2000). These societies valued the artisan as well as the warrior, the spiritual leader, the storyteller, and the hunter (Wachoviak and Clements, 2001, and Dewey, 1934). However, as Europeans colonized the New World, they shunned such aspects of indigenous cultures. Colonists emphasized learning to read and write as a means to transmit their Protestant faith to children (Spring, 2011). These Westernized ideas greatly influenced the first public schools in the United States that started in Massachusetts in 1647. These schools did not incorporate arts classes, according to Seabolt. It took about 200 years before art instruction became part of school curriculum. In the 1840s Horace Mann taught the first art classes in public schools, but he concentrated on mechanical drawing, an employable skill.

Public schools in the early 1900s became more influenced by the Progressive Era, which encompassed Dewey's theory of not just focusing on a student's intellectual development, but also moral sense, social awareness, and aesthetic senses. As Dewey influenced other educators to value the student's experiences, more schools taught art from the perspective of students creating self-generated works, as opposed to emulating the established masterpieces (Seabolt, 2001). In 1957, the launching of the Soviet satellite Sputnik squashed such progressive educational tendencies. Americans urged educators to focus on the "basics" of reading, mathematics, and science (Seabolt, 2001 and Gullatt, 2007).

Small efforts to promote arts education in schools occurred in the 1960s, 1970s, and 1980s. In 1965, the Elementary and Secondary Education Act provided money for arts programs. However, more telling was that the 1983 *A Nation at Risk: The Imperative for Educational Reform* failed to mention the arts in the core curricula. In 1988, the National Endowment for the Arts published *Toward Civilization* to express a commitment to arts education and arts education research. This publication, funding from the NEA, and funding from other arts organizations inspired several studies exploring the state of arts education in public schools and the effects of arts education on student achievement. In the 1990s came a push for Discipline-Based Art Education, or DBAE, described as a subject-oriented approach to teaching art that gives students a greater context by including art history, art production, art criticism, and aesthetics. In 1994, the U.S. Congress passed the Goals 2000: Educate America Act, which listed the arts as part of a national core curriculum for students to achieve high levels of knowledge and performance. Studies continue to research the impact of arts education on other disciplines, and the significance of arts education in and of itself. Art enhances the development of a student's communication skills because students can use art as a way to express the meaning of a personal experience (Wachowiak and Clements, 2001).

Dillon's (2006) article mentioned a poll commissioned by the Ford Foundation. It said parents want their children to have an education that engages and satisfies them, and, "When asked which activities should be increased to produce this happy child, respondents inevitably pointed to the arts" (p. 36).

## Definitions

The literature defines the arts in broad inclusive terms, referring to all forms of personal, creative expression. This review defines “arts exposure” as participating in, observing, or listening to any form of artistic expression, including the visual arts, musical arts, and dramatic arts. When this paper refers to “the arts,” the term is inclusive of all forms of artistic expression, such as listening to music, playing music, singing, discussing music, critiquing music, all of these are forms of arts interaction and involvement. Observing a dance or theatre performance, or participating in a production as an actor or a props master, also qualify as arts exposure. At times this paper will refer to more specific actions, such as creating visual artwork, critiquing artwork, music listening, choral training, instrument training, acting, and performing music.

This review uses the term “transfer,” which signifies collateral benefits of music education that extend to nonmusical areas of cognition. Transfer can also refer to collateral benefits of arts education that are not considered artistic cognitive skills.

“Academic achievement” is defined in this paper as the student’s ability to earn higher scores on standardized tests, achieve increased grade points in language arts subject areas, achieve higher performance ratings on assignments, as well as being engaged, immersed and intrinsically motivated to work on class assignments and activities.

This paper seeks to focus on studies that contain measurements related to “language arts,” which is defined as using reading, writing, verbal, and/or communication skills.

Another point of emphasis for this review is students of an “adolescent” age. This paper uses the term adolescent to refer to middle and high school students who are ages 10 to 18, and students who are in grades five through 12.

### **Limitations**

This is a literature review based on the most current peer-evaluated, research-based studies. This paper focuses on studies that list examples in their research of academic achievement in the realm of English Language Arts, which includes reading, writing, verbal and communication skills. Research is not confined to the United States. The review includes studies from Canada, Australia, the United Kingdom, and Turkey, however it is limited to students using the English language in school environments.

This review attempts to focus primarily on adolescent students in grades fifth through twelve, however a few studies fall outside of that purview. Students of varying ages, races, ethnicities, and students whose families range in socio-economic levels are represented.

### **Summary**

Humanity seems to have evolved from valuing artistic endeavors as part of daily existence to placing these works in a special, inspirational compartment of life. However, Burton (2000) questions that compartmentalization. While educators such as Dewey (1934) concentrate on a connection between artistic expression and other

intellectual activities, such researchers as Eisner (1988) argue it is not fair to place art in a fixed frame and investigate it as a source of academic achievement in other subjects.

This literature review will explore studies that connect students' artistic experiences with how they perform in the academic arena, especially as it pertains to language arts. Although the testing of students to evaluate the impact of art may be counterintuitive, in addition to observations, studies in this review use standardized tests, surveys, and school grades as markers of academic achievement.

## CHAPTER 2: CRITICAL REVIEW OF THE LITERATURE

This paper seeks an answer to the question: What effect do the arts have on adolescent academic achievement in language arts? In Chapter One, the question's discussion began with the rationale, controversy, and historical context regarding arts education and its potential benefits and detractions in the American schooling system. Chapter Two will delve into 30 studies on the subject. A majority of the studies occurred between the years of 1995 to 2011. Only two studies, one in 1990 and one in 1993, took place outside of that time frame. Study subjects range in terms of the socio-economic status of their families, racial and ethnic backgrounds, home countries, and ages. The majority of the studies focus on students in fifth through twelfth grade. The research in Chapter Two is categorized into four main outcomes. The first section includes studies that investigate whether the arts help students perform better in other academic areas, and it highlights arts exposure in general in the students' lives. The second section reviews studies that investigate whether the arts help students perform better in other academic areas, and it focuses on students' exposure to the arts during class time. This paper then introduces a third section of studies based on research that deduces arts exposure improves students' attitudes, which translates into overall academic achievement. Finally, the fourth section contains studies that determine the integration of arts education does not correlate directly to academic achievement in other subject areas.

Some studies conclude that the arts help students perform better in several other academic realms, and on tests gauging a student's reading, science,

mathematical, and/or verbal skills. This paper focuses on studies that either illustrate results relating to academic courses in general, or highlight such skills as reading, writing, verbal, or other communication because these actions relate directly to language arts curricula.

The connection between a student's exposure to the arts and the student's improved performance in language arts related skills, increased grade point averages in language arts subject areas, increased grade point averages overall, or improved performance on a particular test following exposure to the arts exemplifies what this paper considers academic achievement. The research presented in this review will most benefit middle school and high school language arts teachers who plan to incorporate arts related activities into their daily curriculum.

The first section of 11 studies focuses on the impact of increased artistry and its transfer to other curriculum when students experience a general exposure to the arts. Such exposure can range from afterschool activities such as band, to participation in a school's visual art class, to taking acting lessons. The next section contains reports in which the educators integrated artistic expression into lessons, class demonstrations, or class work.

### **Increased exposure to the arts improves academics**

Beginning with Catterall, Chapleau, and Iwanaga (1999), eleven studies will be analyzed in this first section. These studies investigated the effect of general arts exposure on student performance in school on grades and on tests. The Catterall et al. (1999) study launches this section due to the extent of its data, culled from more than 25,000 students over 10 years that compares the students' level of arts

exposure with school-subject test scores and class grades. Next comes a comprehensive study from Gouzouasis, Guhn, and Kishor (2007) in which they examined provincial exams of about 180,000 British Columbian high school students and cross referenced their scores with their involvement in music courses, followed by Fitzpatrick's (2006) comparison of musician and non-musician state standardized test scores. Next the Johnson and Memmott (2006) exploration of the relationship between participation in school music programs and state standardized test scores is assessed, and then this paper references Burton, Horowitz, and Abeles (2000) examination of connections between student exposure to arts and their standardized test scores. Schellenberg's (2004) comparison of the IQs of young Canadian students who took music or drama lessons to those who did not is followed by a review of the Mahoney (1997) study examining the impact of extracurricular activities on dropout rates. The analysis continues with Walker's (1995) research into whether fine arts exposure increases grades, and then Luftig's (2000) investigation of the impact of a school-wide arts program on students' reading skills. This is followed by Wolf's (1998) study investigating the impact of dramatic coaching on student reading skills. The final study for this subsection is the Vaughn and Winner (2000) analysis of a connection between arts exposure and students' SAT scores.

In a correlational-quantitative study, Catterall, Chapleau, and Iwanaga (1999) examined data from 10 years of researching more than 25,000 eighth to twelfth graders and found increased academic achievement for those involved in music and theater regardless of socioeconomic status of the students. This data came from a panel study called the National Educational Longitudinal Survey (NELS:88).

The Catterall et al. (1999) study noted student involvement in arts activities such as playing an instrument, being involved in band or chorus, participating in musical drama and theatre, visual arts, and/or dance instruction inside or outside of school hours. Several test scores of the students were compiled (ranging from math to reading to history). Among eighth grade students with high involvement in the arts, 82.6% earned mostly As and Bs in English, while among the low involvement students 67.2% earned those same grades. Among high involvement students only 1.4% dropped out by 10<sup>th</sup> grade, while 3.7% of low involvement students did, the study also found. Sustained student involvement in theatre arts relates to gains in reading proficiency, gains in self concept and motivation, and higher levels of empathy and tolerance for others, the study results highlighted. In eighth grade, the advantage of drama involved students on reading test scores was 9%, and come 12<sup>th</sup> grade that advantage grew to 20%. The study concludes that the idea of causation cannot be supported.

The study's large sample size is a benefit. Also, the study's sample, which comes from a national database is not biased. The study results addressed some aspects of internal validity such as the form of selection, which includes all students who took the national standardized test, and the testing procedure because participants only took the test once. Overall the study addresses most threats to internal validity because it is based on a national sampling of a test that was already administered. The study described 20 of the differences favoring students involved the arts were statistically significant because they had a p-value of  $p < .001$ , and four

other references are not significant at the  $p < .01$  level. Therefore, a majority of the study addresses the threat to external validity. The study is strong.

In a correlational-quantitative study, Gouzouasis, Guhn, and Kishor (2007) examined data from British provincial exams of about 180,000 high school students in three British Columbian cohorts and found a positive correlation between achievement in music courses and achievement in the core academic subjects. The study reviewed test results in English, math, and biology, and compared results among students enrolled in music courses with those who were not enrolled.

Data showed a range of p-values depending on the test subject (math, biology, or English), the source of music (band, strings, or choir), and the cohort year (2001, 2002, or 2003). The only two results under English with a statistical significance, showing  $p < .001$ , included band members in the 2003 cohort and choir members in the 2001 cohort. The category of 2003 cohort band members listed a mean score of 68% of the students passing, which is .75 above the average, and for 2001 cohort choir members the mean score of 71.5 is listed, which is .14 above average. Results for band members in the 2002 and 2001 cohorts failed to show such a significance with  $p < .065$  and  $p < .003$ , respectively. The study explained that there did not seem to be a systematic relationship for English. The other two subjects showed a much greater number of mean scores with a  $p\text{-value} < .001$ , which is statistically significant.

While the Gouzouasis et al. (2007) study shows a positive correlation between music achievement and core subject achievement, researchers surmised that the results cannot be generalized to all the fine arts. These results should only

be considered in relation to music. However, the results do have external validity in terms of the relationship between music and education. The differences in math were 10 percent, in biology 11 to 13 percent, and in English 2 to 9 percent. The study claimed consistent results across the three cohorts, which more than implies the results can be generalized within the context of music as an art form. The study does not make causal claims because the students were not assigned randomly to music courses, and the study could not track students' previous musical and academic exposure. This study exemplified greater strengths than Catterall in terms of acknowledging possible shortcomings in considering history, which means it has greater internal validity. This is a strong study.

In an observational-comparison quantitative study, Fitzpatrick (2006) compared Ohio Proficiency Test scores of 915 ninth-grade musicians with the scores of 14,516 non-instrumental peers, and found that the musical peers consistently scored higher.

The statewide standardized test taken in 2003-04 school year included the subjects of citizenship, math, science, and reading. Instrumental students scored higher across all subjects than non-instrumental students in similar socio-economic status categories. The ninth grade test score results for reading showed a *p-value* < .001 for all categories, which is statistically significant. Among students who paid full price for meals, instrumentalists earned a mean average of 228.26 (standard deviation of 28.80) and non-instrumental students earned a mean average of 218.11 (standard deviation of 26.71). Among students who qualified for free and reduced meals, instrumentalists earned a mean average of 218.18 (standard

deviation of 24.59), while non-instrumental students, 204.39 for non-instrumental (standard deviation of 29.57).

After culling results from ninth-grade test takers, the researchers pulled Ohio Proficiency Test scores from those same students when they were in fourth and sixth grade. Researchers discovered higher test scores among the students in fourth grade, which is interesting because the school band program begins in fifth grade and string instrument musicians would have just started that year.

Researchers concluded that Columbus Public Schools' instrumental music classes attracted students who already had higher test scores. The study's sample, which came from test takers, is unbiased and the conditions have the potential to be generalized, which are strengths. The instrumentation of the state test reduces the possibility of changes over time. The study included results over time by choosing high school students and then backtracking their test results in previous years, which addresses subject attrition and maturation changes because the sample is taken after time elapsed. This is a strength. The study's low p-value regarding ninth grade reading scores illustrates external validity. Overall this is a strong study.

In a correlational-quantitative study, Johnson and Memmott (2006) examined the relationship between participation in school music programs and state-mandated standardized tests of 4,739 elementary and middle students in the United States and found that students in "high-quality" music classes earned better test results in English and math. The study compared test results in math and English of two groups, one belonged to a school music experts described as having an "exemplary"

music program and another group whose school music program is considered “less than ideal” in four regions of America: the South, East Coast, Midwest, and West.

Johnson and Memmott (2006) study results for English showed significant differences for region, including that schools with “high-quality” music programs on the West Coast had English scores lower than schools whose music programs were considered inferior in other regions. The overall mean z-scores for middle school students showed that students in the “excellent instrumental” group was .90, in the “excellent choral” group it was .81, in the deficient instrumental group it was .69, and in the no music group it was .33.

Music education professors in each region chose schools based on selection criteria provided by the study and the National Association for Music Education determined guidelines for the music program differences. The Johnson and Memmott (2006) study purported that the threat posed by selection in this study is minimized for the middle school group because elementary school students all took the same music class, however a threat to the selection process should be noted because the middle schools themselves grouped students in terms of the quality of their abilities. Therefore, each musical program could be ranked independently, something the study overlooked. Differences existed among the tests because the study incorporated tests from four different regions of the country, this inconsistency opens up the process to potential arithmetic mistakes and jeopardizes the study’s internal validity. The tests had to be standardized through z-scores. A strength of the study is its objectivity in how students were selected, the large sample used, and the instrumentation used in terms of the state standardized test.

A weakness of the study is that it points to a significant difference depending on the region from which students hailed, however it did not detail how this difference likely impacted the results. The study explained that this shortcoming should be outweighed by the use of such a large sample. The study parallels Catterall, Chapleau, and Iwanaga (1999) findings, which addresses its reliability. Overall this is a strong study.

In a phenomenological qualitative study that also used some quantitative research techniques, Burton, Horowitz, and Abeles (2000) examined the connection between arts exposure and academics with standardized test results of 2,406 students in fourth, fifth, seventh, and eighth grades, and found students with high arts exposure consistently outscored those with low arts exposure. The study identified elementary and middle schools with a mix of arts disciplines (music, dance, drama, visual art), mix of teaching methods, and mix of teachers (specialists and external providers). The study included schools with integrated programs, those with special blocks of arts classes, schools that offered several arts opportunities, and those that offered very few. Schools chosen had to agree to allow entire grades of students to be tested. Students tested came from seven schools in New York City, two additional schools in New York State, one in Virginia, one in Connecticut, and one in South Carolina.

Strengths of the study are that adequate examples are offered, also that the researchers clearly describe their theoretical positioning, the data gathering procedures, reasoning for decision-making, data analysis procedures, and coding of the categories. The study exemplified dependability based on its alignment with

other studies, also it showed transferability due to its use of several circumstances, such as a variety of art disciplines, teaching methods, and school approaches to arts exposure. The potential exists for confirmability because the surveys and the method description are detailed enough to audit. Weaknesses of the study are that it made no reference to triangulation and member-checking. These weaknesses are not enough to devalue the study however, because it provides enough details for other researchers to produce a confirmation.

In a quasi-experimental quantitative study, Schellenberg (2004) examined data from 132 six-year-old Canadian students who took music or drama lessons, and found an increase in the full-scale students' IQs. It is noted in the study, however, that all students experience an increase in IQ at this age because they enter school. This variable is accounted for because the study included four groups of randomly chosen students with similar family incomes, accounting for two control groups (one that received drama lessons and one that did not), and two experimental group of students who received music lessons. All participants took an I.Q. pre-test and a similar posttest.

Results of the IQ test show very little difference between the two control groups, one of which received no arts enhancement and the other that received drama lessons. However, results of the IQ test showed students in music scored 7.0 with a standard deviation of 8.6, compared to 4.3 points scored by the control group with a standard deviation of 7.3. The study claims this is a statistically significant result ( $p < 0.05$ ), however it is not. This high p-value means that the study does not have external validity. Since the study measured students' IQs before and after the

study, this keeps the possibility of regression low. Another strength of the study is that the researchers used more than one form of control groups to compare to the experimental group. One control group took no music lessons. Another control group took lessons for an artistic endeavor other than music, specifically drama. The study showed internal validity. The study addresses maturation with the IQ testing twice, selection through an ad, which increases the randomization, and subject attrition (144 students started the study, but results only reflect the 132 who remained at the study's conclusion). This is a strong study.

In a longitudinal qualitative survey study, Mahoney (1997) examined the impact of extracurricular activities such as fine arts on dropout rates for 392 students tracked in seventh grade and again in 12<sup>th</sup> grade, and found students who participate in such activities were less likely to drop out early. Researchers interviewed students annually over six years. Students participated in 64 different activities, which were coded into nine mutually exclusive categories including athletics, academics, fine arts, student government, and vocational. The study compared dropout rates among participants and non-participants in extracurricular activities. Researchers visited schools to discuss student school participation and determine whether students had left. Students who dropped out of school before 12<sup>th</sup> grade participated in fewer activities at all grade levels. In seventh grade, the 8.41 participation rate had a  $p$ -value $<.01$ ; eighth grade 10.14,  $p<.001$ ; ninth grade 15.46,  $p<.001$ ; and tenth grade 31,  $p<.01$ . Therefore, the results of the eighth grade year and the ninth grade year are the only statistically significant data. The other two examples were not statistically significant, which is a threat to external validity.

This study showed strong credibility because its data gathering methods and procedures, such as conducting follow-up interviews after six years, and recording 99% of the original sample, 466 of 472 students. The study shows confirmability because the way the data was collected and analyzed can be audited by an outside party. The study's findings are consistent with other studies, which speaks to its dependability. Also its findings can be transferred to other similar settings because the sample used included schools across the nation, as well as a South American school and a penal institution. This is a strong study.

In a qualitative case study, Walker (1995) examined whether fine arts exposure could increase grades for 68 students, including 54 "at-risk" (p. 15) of failing, and found that for several it did. The study is described as a case study, however the methods describe using a control group that did not join a program, and an experimental group of 68 students who voluntarily participated in an extracurricular fine arts program at an urban high school in Lansing, Michigan. The researcher clearly described her theoretical positioning, and explained the reason for focusing on a fine arts program at Sexton High School. The program addressed reasons she researched that had been attributed to low academic achievement in African-American children. The researcher described the program as designed to give participants confidence to join clubs, take academic risks, and become part of a supportive group. The study begins with a description of left and right brain research, its implications for learning theory, and the integration of fine arts to enhance whole brain learning. The study then continues on to detail the school

demographics and the extracurricular fine arts program without addressing the concept of brain research in its own investigation.

The Walker (1995) study described that of the 1,400 students at the high school, 37% received free or reduced lunch, 46% were African American, 42% were white, 6% were Hispanic, 4% were Asian, and 1% Native American. The study found that 45% of students who participated in the fine arts program increased their grade point average. This study has several weaknesses, including that its methodology and data analysis procedures are not clearly described, therefore it is not convincing, nor can it be confirmed because details pertaining to the process are lacking. Study participants were not selected, they volunteered for the extracurricular program, which is something that challenges the possibility of transferability. Multiple perspectives of data sources are not described, and therefore triangulation does not exist. The only strength appears to be that its findings are consistent with other similar studies. This study overall is weak.

In a quasi-experimental quantitative study, Luftig (2000) examined the impact of a school-wide arts program on the reading abilities of 615 second-, fourth-, and fifth-graders in two different Southwest Ohio cities, and found mixed results. The experimental group in the study participated in the SPECTRA+ program, which involves making art, observing art and the process, critiquing art, learning about art in a historical context, art in a cultural context, learning about artistic materials, and arts integration into other curricula. One full control group received standard curriculum, which might or might not include arts exposure. Another control group, called a modified control condition, was created to address the Hawthorne Effect

that notes an experimental group sometimes performs better than the control groups because they are experiencing something new, so this group will receive an innovative new program.

The Luftig (2000) study used the Iowa Tests of Basic Skills and the Stanford Achievement Tests to measure academic achievement. Researchers gave students a pretest, they experienced the program, and then received a posttest. The totals for the “Test of Creative Thinking” show a mean score of 3.37 for the full control group, 4.23 for the modified control group, and 15.54 for the SPECTRA+ group. For the reading total test results, the mean score for the full control group was -2.50, and for SPECTRA+ it was 0.85, which is a *p-value* < .001 and therefore statistically significant.

The sample for this study is unbiased and the study sought to address threats to internal validity by setting up two control groups in addition to the experimental group. This study accounts for testing and instrumentation because it used a state standardized test and students only took the test twice, which reduces regression. Overall this study is strong.

In an observational qualitative study, Wolf (1998) examined the impact of dramatic coaching on 17 third- and fourth-graders’ reading skills and attitudes toward reading, and found the approach can improve reading comprehension and fluency, as well as attitudes. The subjects of this study worked in a remedial classroom and included students reading below grade level as well as students with special needs. The study lacked school details, such as size or environment. The five girls and 12 boys studied included seven Caucasian students, five Latino

students (one is mixed Filipino/Latino), two African American students, two East Indian students, and one Filipino student. During the one-year study, students went from traditional round-robin reading instruction to theater activities, exposure to multicultural trade books, and literary discussions.

The participant observer researcher selected the class based on a meeting with the teacher two years prior. The researcher collected data through audio- and videotape recording, school records, informal interviews, and observations during reading class and 10 classroom theatre sessions. Students' comments changed from a majority saying reading was "boring" to many saying they felt "proud," "fine," "cool," and "osum" (awesome). Only two of the 17 students remained negative toward reading, however they asked to do more classroom theatre. The researcher described data gathering, however not decision-making for inclusion and exclusion, also the researcher failed to include a table with coded categories. This study is dependable because its findings align with other similar studies. The details of how data was gathered, and the fact that it involved a year's worth of observations and research, support that the study is confirmable. However, the lack of details regarding the school, and the fact that subjects were reading below grade level and/or had special needs greatly reduces its transferability. The researcher does not describe using triangulation, nor member-checking methods, which is a weakness of the study. Overall, this is a strong study.

In a correlational-quantitative study Vaughn and Winner (2000) analyzed 12 years of national SAT data from 1987-98 and concluded that a positive correlation exists between the level of arts exposure and the students' SAT scores. Students

who took arts classes scored higher on the SAT, especially those who took four years of arts classes – the more art one takes the higher the SAT score. The study found that acting lessons had the strongest correlation with high verbal SAT scores, and that any arts classes improved math and verbal SAT scores.

Researchers repeated the analysis three times to gather data based on composite SAT scores (both verbal and math), independent verbal scores, and independent math scores. The researchers also used this data to determine which scores appeared to correlate highly with particular artistic studies, for example the impact of dance on verbal scores, or music on math scores.

Researchers observed the relationships between the years of arts courses a student took and the student's verbal and math scores. The study found that scores increased gradually with each year of arts the student experienced, from zero to three years, and then the scores made a large spike if the student participated in an arts course for four years. Students who took no arts courses earned a composite SAT score of 886, while students who took one year of arts scored 901. Students who took two arts courses scored 905; students who took three years of arts course scored 910; and students who took four years of arts class scored 952. When researchers isolated the verbal scores, they found a significant jump from a score of 413 for students who took no arts classes to 455 for students who took four years of classes. The mean weighted effect size of  $r=.19$ , with a 95% confidence interval of  $r=.17$  to  $r=.22$ . This shows a significant relationship between higher verbal scores and taking four years of arts, especially when compared to the smaller effect size results for math SAT data with a mean weighted and unweighted effect size of  $r=.11$ ,

with a 95% confidence interval of  $r=.08$  to  $r=.13$ . The p-values are  $p<.0001$  for verbal scores, and  $p<.001$  for math scores, which are both statistically significant, the verbal score results extremely so.

The Vaughn and Winner (2000) study included data from students about what form of arts courses they took. Students could designate on a questionnaire one of the following answers: no course work; acting or the production of a play; drama or theater appreciation; studio art and design; art history or art appreciation; dance; music history, theory, or appreciation; music, instrumental or vocal performance; photography or filmmaking. The researchers compared verbal scores and math scores across art forms, calculated the effect sizes, and found that effect sizes for verbal scores ranged from a high of  $r=.28$  for acting, to a low of  $r=.14$  for dance. The p-values for this data were statistically significant at  $p<.0001$ . Math scores ranged from  $r=.16$  for acting to  $r=.06$  for dance. The p-values for this data were statistically significant at  $p<.0001$  for all art courses for dance, which was  $p<.0002$ .

This study detailed the data gathering and analysis. The sample came from national SAT scores, therefore it was unbiased, can be generalized, and poses few threats to external validity. The researchers described the results as correlational because the students who participated in arts courses could likely be high achieving students. Also, the students who earned higher SAT scores may attend schools that are not only strong in arts offerings but academics as well. This is a strong study.

The studies reviewed in this section show strong examples of how students' exposure to arts disciplines can positively affect their academic achievement. Catterall et al. (1999) showed, with a sample of 25,000 students over 10 years, that

student involvement in the arts can increase their test scores, grades, and reduce their dropout rates from school. The Gouzouasis et al. (2007) examination of about 180,000 British Columbian high school student exams also showed a positive relationship between the arts and student academic success. Fitzpatrick's (2006) comparison of musician and non-musician state standardized test scores showed that the musicians scored higher. The Johnson and Memmott (2006) study found that students exposed to high quality music programs scored higher on standardized English tests. The Burton, Horowitz, and Abeles (2000) investigation concluded that the more exposure students had to the arts, the higher their standardized test results. Schellenberg's (2004) study comparing of the IQs of young Canadian students who took music or drama lessons to those who did not found that the musicians had higher IQs but the results were not statistically significant.

Mahoney's (1997) examination of the impact of extracurricular activities on dropout rates showed that students who joined an extracurricular arts program were less likely to leave school early. Walker's (1995) research into whether fine arts exposure increases grades, proved to be the weakest study in this section. However, the study did find an increase in grades among 45% of the study participants.

Luftig's (2000) investigation of the impact of a school-wide arts program on students' reading skills showed some improvements among the students with more arts exposure, however the results were not significant. Wolf (1998) investigated the impact of dramatic coaching on student reading skills and concluded that it did improve the students' reading skills and attitudes toward reading. The final study for

this section, the Vaughn and Winner (2000) analysis, showed a correlation between students' involvement in the arts and their higher level SAT scores.

### **Integrating an artistic approach in non-arts classes**

In the previous section, studies showed correlations between students experiencing disciplines of the arts in their lives and then performing well on academic measures. The following section reviews nine investigations in which students are asked to become involved in or observe an artistic process as part of the lesson, and then the students' class work or test scores are analyzed. In one study, researchers asked students to incorporate drawings into their class work (Edens & Potter, 2001), in different study researchers played music during writing class (Kariuki, 1998), and in yet another researchers divided students into drama groups during writing class (Moore & Caldwell, 1993).

Walker, Tabone, and Weltsek (2011) will be the first study reviewed in this subsection. This research examined data of middle school students regarding their language arts performance in lessons using theater strategies. The Edens and Potter (2001) study follows, which involves students who used pictorial representations for a class assignment. This research is followed by Karakelle's (2009) testing the impact of drama on thinking skills, then comes a Kariuki (1998) study investigating whether listening to music motivates students in writing. A case study by Wilhelm (1995) examining whether visual art improves reading participation is reviewed next, followed by Moore and Caldwell's (1993) analysis of the writing quality of students placed in drama groups.

The paper then reviews Redfield's (1990) examination of the impact of an artists-in-residence program on students, followed by Nantais and Schellenberg (1999) investigation of the "Mozart effect" on young adults. This section of the paper concludes with the Demircioglu (2010) assessment of Turkish students taught English vocabulary through drama.

In a quantitative quasi-experimental study Walker, Tabone, and Weltsek (2011) examined data of 1,020 multi-ethnic American sixth and seventh graders, and found improvements in their language arts performance when lessons incorporated theater strategies. The school district included a diverse population with 36% of African descent, 14% Asian American, 10% Caucasian, and 1% Native American. The participating schools' free and reduced lunch rates ranged from 77% to 88%.

The Walker et al. (2011) experiment included two levels of selected randomization. First the authors randomly chose four experimental schools that would get an integrated arts program and four control schools that would not. Second, they randomly chose 14 teachers in each school. Third, authors selected a class for each teacher at random. The study included 540 students in the treatment condition, and 480 in the control group. The results showed 78% of students in the integrated theater-arts program passed the assessment, compared to 69% of those who did not. A weakness of the study is that it did not describe how it addressed threats to internal validity such as selection. Overall, the study is strong because it uses a diverse student population from several schools, the sample is large, and used two levels of randomization.

In a quasi-experimental quantitative study, Edens and Potter (2001) examined data from 184 fourth- and fifth-graders in a southeastern U.S. elementary school, and found that students using pictorial representations scored higher on the posttest. Researchers randomly selected students (with parental permission) from art class for one of three treatments, which were administered between a pretest and a posttest. Students included 95 females and 89 males, 100 of whom were African Americans, 78 were European Americans, and 5 were Asian Americans. All students took a pretest that addressed their prior knowledge and history, which meant experiences relating to roller coaster rides. Next, students read a narrative on roller coasters that explained the law of conservation of energy. The three lesson treatments included writing what they learned in a science log, an illustrated text directing them to copy the picture, or directions to draw a self-generated presentation. Then researchers administered a posttest.

The results showed that students who drew illustrations scored higher on the posttest, however it was not at a statistically significant level. The study did find that 68% of female students and 32% of male students significantly improved their posttest scores in the written treatment, which the study attributed to females at this age outperforming males on verbal tasks and naturally maintaining longer attention spans. The study controlled for history through the pretest, the quick turnover of the test reduced the threats of testing, instrumentation, and regression. The random selection process of students within the same classes addressed selection and subject attrition issues. This study is strong.

In a quasi-experimental quantitative study, Karakelle (2009) tested the creative thinking skills of 30 young adults and found that drama can enhance the flexibility and fluency of such thinking skills. Researchers chose a control group of 15 postgraduate students (nine females and six males) at random from a class of 34, and an experimental group of students (nine females and six males) studying in the same field who chose to take a creative drama course.

Researchers administered the pretest, then the experimental group of students experienced 10 weeks of drama (30 hours in all), while the control group did not. A posttest showed a significant difference between the fluency and flexibility scores of the experimental and control groups. The posttest average for the control group was 27.4 for fluency with a standard deviation of 9.94, and 25.27 for flexibility with a standard deviation of 9.94 and 8.37, while the experimental group averaged 40.93 and 36.4 with a standard deviation of 14.9 and 13.89, respectively. Researchers found the results statistically significant in both cases with a  $p$ -value  $< .001$ , which shows external validity. The study's selective random sampling addresses internal validity related to selection, and the treatment can be generalized because of the statistically significant  $p$ -values. This is a strong study.

In a qualitative case study, Kariuki and Honeycutt (1998) investigated whether listening to music can motivate two emotionally-disturbed students at a rural east Tennessee elementary school in their writing, and found that it can. The researcher chose two students who could read and write from class of 28 special-education students enrolled at the school. The researcher observed the students, informally interviewed them regarding their writings, used a rubric of writing skills for

evaluation, a writing volume scale for quantification, and a 10-question “opinionnaire.” The study asked if emotionally disturbed students could improve the quality of, quantity of, and attitudes toward their writing skills when exposed to music during writing tasks. Both subjects made fewer errors in capitalization, punctuation, and sentence sense, improving their letter grade by two levels. Both subjects increased their word count, one from 5 to 40, and the other from 9 to 92. Both subjects reported increased scores on an attitude scale that ranged from 5 to 50, where above 30 tended to be favorable towards writing assignments. Subject 1 increased from 18 to 41, and Subject 2 increased from 26 to 49. The study failed to discuss member-checking, which is a weakness. The study is dependable because it aligns with similar studies, and it is confirmable due to the details of the data collection and analysis provided. The study is credible because it is detailed regarding the data gathering procedures, explains how coding categories were derived, and uses triangulation in terms of having several forms of data sources including observation, interviews, two forms of writing skills evaluations, and an “opinionnaire.” The study is not transferable because the researchers used a small sample by choosing two subjects from a pool of 28 special education students. Overall, the study is strong.

In a qualitative case study, Wilhelm (1995) investigated whether visual arts can better engage two developmentally-delayed, seventh-grade readers, and found that it can. Wilhelm, who taught the case study subjects, worked in a rural school district of 3,300 students. One form of his data collection included symbolic research interviews where students could create cut-outs or find objects to represent

important characters, settings, forces, or ideas that played a role in their reading experience. Students could include depictions of themselves as they entered and exited the reading “world.” This process inspired the students in Wilhelm’s 1995 study to carefully read the text repeatedly in an effort to “get it right” (p. 485). The researcher observed increased forms of expression, reading engagement, and post-reading discussion involvement from the subjects after the initial 10 weeks of the study and the subsequent eight weeks of using story drama as a response to literature. The researcher fails to clearly describe data analysis procedures, decision-making for what is included and excluded, and the confirmability is not possible, which constitutes study weaknesses. The findings are consistent with other similar studies and transferability exists, which are study strengths. Overall the study exhibits too many weaknesses.

In a quasi-experimental quantitative study, Moore and Caldwell (1993) examined the writing quality of 63 predominantly Caucasian second- and third-graders in a rural Rocky Mountain region that worked in drawing and drama groups, and the researchers found the quality of student work superior. Researchers assigned two second-grade classes and two third-grade classes to three groups, mixing gender and grade levels in a random designation. The three groups became a drama group, a drawing group, and a control (or discussion) group. Researchers gave all groups a writing assignment on “fears” as a pretest. The narrative writing scale ranged from one to seven for overall content, ideas, organization, style, and context. The study investigated treatment effects using a 15-week multiple group repeated-measures design.

All teachers presented the same lesson plan focused on a specific language concept or skill, and then students in the control group would have a discussion, while the drama and drawing groups performed warm-up activities. Following the warm-up, the drama group worked through ideas based on main scenes of stories with discussion, role play, paired improvisations, and presentations to the whole class. The drawing group drew characters, caricature, imaginary places, facial expressions, personal experiences, and action scenes among other ideas. Next, students in each class wrote first drafts of a narrative composition.

Overall results showed improvement for all groups. The control group gain was 0.69 in mean scores, while the drawing group gained an average of 2.47 and the drama group gained 3.1. The p-value when comparing drama and drawing groups with the control group was .0007, which is statistically significant. One possible threat to internal validity is the selection process because it was not randomized. A strength is that the study researchers showed thorough techniques of collecting several hundred writing samples during the study to analyze the accuracy of the writing scale used. Overall this is a strong study.

In a one-year qualitative study, Redfield (1990) examined data from students, teachers, parents, artists, administrators and coordinators regarding a California artists-in-residence program, and found that students improved their written and oral communication skills, and self-confidence. The researcher observed classrooms, facilitated focus group interviews with staff and artists, analyzed report card grades, and gave questionnaires to 503 students, 54 teachers, 21 parents, 12 artists, nine administrators, and nine school-residency coordinators. The researcher noted that

especially during the dance residency, students increased in spontaneity, and said during focus group interviews that they learned how to express themselves in writing, by speaking around others, and by acting out their feelings. The questionnaire data showed that the artist-in-residence program increased student self-confidence, and helped students feel more motivated to participate in activities. The study showed credibility through the researcher's detailed description of data gathering and analysis, and because of its triangulation in terms of using observation, focus group interviews, analysis of report cards, and questionnaires. The study shows dependability because its findings are consistent with similar studies. Other strengths of the study are its confirmability, due to the approach to data collection and analysis, and its transferability due to the high number of subjects, as well as the range of subjects (from parents to artists). This is a strong study.

In a quasi-experimental quantitative study, Nantais and Schellenberg (1999) researched the "Mozart effect" with 84 recruited undergraduates for two experiments, and found students performed better on spatial-temporal tasks after listening to Mozart, or any auditory stimuli pleasing to the listener. Participants for the first experiment split into a control group, which heard silence for 10 minutes, and a music group, which listened to Mozart or Schubert for 10 minutes, and then executed a task. Participants returned to the experiment again within two weeks and switched treatments. Results showed higher scores on the spatial-temporal task after participants listened to music (Mozart or Schubert) than when they listened to silence. The median score after a period of silence was 11.89 (standard deviation of

3.59) and after Mozart was 12.75 (standard deviation 3.38) with  $p\text{-value} < .001$ , which is statistically significant. Meanwhile, the results after listening to Mozart in the second session was 13.00 (standard deviation 3.80) and after the story was 12.93 (standard deviation 2.91). Participants for the second experiment listened to Mozart or a story, and switched treatments later. In this case, the study found no discernable difference between how students performed after listening to Mozart, some other form of classical music, or the story, if they found that most pleasing.

In the first experiment, comparing Mozart to silence, the results are statistically significant, however in the second experiment they are not. Some weaknesses of this study are that it simply noted it recruited participants, but gave no other details. Also, the study fails to address the following threats to internal validity: instrumentation because participants may get bored by the testing method, and regression because the subjects only took the test once and that increases the possibility for error. Overall this study is weak for the purposes of this paper because its results deal with spatial reasoning, which is related to math skills rather than language arts skills.

In a quasi-experimental quantitative study, Demircioglu (2010) examined data from 50 Turkish students, ages 9 and 10, and concluded that teaching vocabulary through drama is highly efficient. The control group of one class consisted of 14 boys and 11 girls. The experimental group made up of a different class included 13 boys and 12 girls. The control group learned new English words by receiving the equivalent term in Turkish, while the experimental group learned English vocabulary as the teacher told interesting stories, acted out ideas, and used pictures, puppets,

masks, and other objects to help explain terms. The study described the results as being in line with national and international findings, however it does not include details of its results beyond one statistic that claimed a significant difference between the experimental and the control group, “with 95% degree of confidence ( $p \leq .05$ .)” The students’ random assignment to two classes became the dividing lines for a control group and an experimental group. The test format and the external validity are unknown because the study does not explain several factors, such as whether participants were tested on the vocabulary words previous to the drama. The study also failed to provide enough explanation regarding history, maturation, testing, instrumentation, regression, selection, and mortality. This is a very weak study.

This section reviewed studies on both ends of a continuum that that showed improvement in students’ language arts skills and motivation, but also some studies that failed to support such enhancements. Overall, the section’s strongest studies showed a positive correlation and the weakest ones did not. This section of the paper began with Walker, Tabone, and Weltsek (2011), a strong study that found that middle school students’ language arts performance improved when lessons included a theatrical approach.

Next, Edens and Potter (2001) research showed a strong correlation between students who used pictorial representations on a class assignment and higher test scores. Karakelle (2009) investigated the impact of drama on thinking skills of young adults and found it does improve the flexibility of student thinking skills.

Kariuki's (1998) study followed Karakelle's strong analysis. Kariuki showed that listening to music could motivate student writers.

A case study by Wilhelm (1995) failed to describe data analysis procedures used to examine whether visual art improves reading participation. This proved to be a keen weakness of the study. Next, came a strong study by Moore and Caldwell (1993). Their analysis of the quality of writing for students placed in drawing and drama groups found improvement in both experimental groups, and an even greater development among students in the drama group. Redfield's (1990) examination followed and it proved to be another strong study. This one investigated the impact of an artists-in-residence program on students and discovered that students improved their self-confidence, as well as their written and oral communication skills.

The section ended with the Nantais and Schellenberg (1999) research and that of Demircioglu (2010). Nantais and Schellenberg reviewed the "Mozart effect" on young adults and Demircioglu assessed the results of Turkish students learning English vocabulary through drama. Both studies had several weaknesses in relation to this paper. The Nantais and Schellenberg research related to spatial reasoning, which does not connect to language arts skills, and Demircioglu failed to provide enough details regarding procedures, data, and analysis.

### **Increased artistry enhances confidence and therefore academics**

The previous section reviewed nine studies that investigated connections between how students' exposure to the arts can impact their academic performance, especially when that exposure is integrated into the class lesson, or classroom expectations. The artistic integration ranged from researchers asking students to

include drawings in their class work (Edens & Potter, 2001) to researchers playing music during writing class (Kariuki & Honeycutt, 1998).

The five studies in this section examine whether exposure to the arts improves a student's overall academic achievement because their confidence and other aspects of their attitude improve through artistic expression. These studies highlight how students with greater exposure to different forms of artistic expression perform better on academic tests.

The first investigation covered in this section is a qualitative study by Smithrim & Uptis (2005) that found students attending Learning Through The Arts schools to be more engaged than their peers at other schools. The Demirel (2011) study follows with its examination of the impact of visual arts lessons on elementary students' self-confidence. Next, the Hope (2007) exploration of whether students with low grades and low motivation became further alienated at secondary schools because they lacked music and arts prospects. The Dowson and McInerney (2003) research of Australian middle school students' motivational goals for academic achievement is reviewed next. This section concludes with an investigation by McInerney (2001) of how students connect motivational goals, self-concept, and academic achievement.

In a longitudinal, three-year qualitative study, Smithrim & Uptis (2005) examined 650 students at Canadian schools in six different cities to determine if students in Learning Through The Arts schools benefitted from the program, and found students became more engaged. Researchers randomly selected 650 students out of the 8 to 11 schools participating in the Learning Through The Arts

program, an arts integration program. Students joined the study in a staggered form, for example the first year 1999-2000 students and teachers in grades 1 and 4 joined, the next year, 2<sup>nd</sup> and 5<sup>th</sup> grade joined, and researchers added grades 3 and 6 in the third year. In the end, the student sample totaled 4,063. The study added another 2,602 students from the same six cities for control groups. Researchers approximated the overall attrition rate at 32% in the student population.

The study gathered qualitative data through open-ended surveys, one-on-one interviews, and focus group interviews. Researchers used the Canadian Achievement Tests, and reading tests that measured comprehension, story sequencing, vocabulary, and grammar. The study concluded that involvement in the arts meant greater engagement in learning at school. Surveys revealed that students, teachers, parents, and administrators said children engaging in learning meant they observed cognitive, physical, emotional, and social benefits. A teacher quoted in the study by Smithrim and Upitis (2005) said, "They are so attentive during the artist's stay and therefore learn more" (p. 120); another teacher said, "The dramatics – being able to act out the life cycles of the frog and butterfly – the children really learned those lessons – experiencing it physically made the difference" (p. 120). This study described the selection of subjects, the member-checking, and data analysis procedures. The research showed credibility in terms of recording interviews, double entry of data, and by having a form of triangulation in terms of gathering data from surveys, interviews, focus groups, and reading tests. The study results show dependability because they are comparable to other similar studies. The high sample number, the range of subject ages, and the random

selection illustrate the study's transferability. The study's detailed data collection process, its analysis, and its ability to be audited by an outside party validates its confirmability. This is a strong study.

In a qualitative study, Demirel (2011) investigated the impact of visual arts lessons on elementary students by interviewing four teachers, and found that student self-confidence, mental development, and social development improved. Specific areas noted by all teachers include students gaining self confidence, under the category of social development; acquiring a critical point of view, discovering nature and the environment, and developing creativity under the area of mental development; and under emotional development, acquiring aesthetical perspective, and realizing one's own skills.

This study demonstrated several weaknesses. The researcher does not explain how he connected with the subjects, nor did he refer to interviewing or observing students. The researcher described interviewing nine teachers, however comments from just four are recorded in tables of the report. The study fails to explain the discrepancy. The study contains no comments from students. Another weakness is that the teachers, according to Demirel's 2011 study, "refused" (p. 1973) to have their answers recorded outside of the questionnaire. This study did not show potential for credibility because it lacks a reference to member-checking and it lists several forms of data collection but does not include them in the study. This study is not transferable or confirmable due to its small sample size, the lack of detailed coding system for participant's answers, and the lack of explanation for several inconsistencies. This study is weak.

In a three-year longitudinal qualitative study, Hope (2007) investigated whether fewer music and arts offerings at United Kingdom secondary schools alienated disaffected youth, and found that 21 observed and interviewed youth wanted music incorporated into all courses. Methods for data collection included classroom observation, researchers' diaries, semi-structured interviews, collection of student work and diaries, and questionnaires for students, staff, and parents. The urban school had 37% ethnic minority population, including students from Asian and African-Caribbean backgrounds. The school attracted some refugees and 34.7% of the students in 2001-02 spoke English as a second language, while 41% qualified for free school meals, and 30% were listed on the register of Special Educational Needs. The study mentions that primary schools identified students in the study as at risk for disaffection. Students attitudes in regards to composing and performing music transitioned from them thinking it was elitist in nature in 2000, to two years later saying a person need not be "musical" to enjoy and contribute to music.

In music lessons, students spoke of "enjoyment" and "freedom," which greatly differed from comments of "boring" and "dull" used to describe other subjects. The study described students as progressing because "their self-confidence grew and with it, a sense of understanding of the subject [of music] and, to varying degrees, the experience of success." This researcher does not clearly explain data gathering and analysis procedures. The study's credibility is not strong, nor is its transferability, or confirmability. This study showed several weaknesses.

In an inductive qualitative study, Dowson and McInerney (2003) examined data from 86 Australian middle school students regarding their motivational goals,

and found eight distinct motivational goals for academic achievement. This study included interviews and observations of 12- to 15-year-old students who attended two elementary and four middle schools in Sydney, Australia. The study found that students' motivational goals include mastery, performance, work avoidance, social affiliation, social approval, social responsibility, social status and social concern. Researchers explained that students do not isolate these goals, but rather the goals interact in conflicting, converging, and compensatory ways to influence students' academic motivation and performance. The students volunteered for the study and represented a wide range of academic backgrounds. The interview structures ranged from conversational and informal to semi-structured and structured. The observations included classroom time and field notes. This study detailed its coding process, data gathering techniques, and data analysis, which are strengths. This study is not aligned with this paper's question, however. On that basis this study is considered weak.

In a qualitative study, McInerney (2001) investigated how Aboriginal and non-Aboriginal students relate motivational goals, self-concept, and academic achievement, and found a few surprising similarities such as how both groups view education as valuable. Non-Aboriginal participants for the study numbered 939, and Aboriginal participants numbered 129. This psychometric study done through surveys in New South Wales, Australia, showed that while Aboriginal participants had a weaker sense of purpose for education, they also had liked school more than their non-Aboriginal peers.

The McInerney (2001) study is not credible. The researcher failed to explain data gathering and analysis procedures. The study showed no signs of triangulation or member-checking. Also, it does not have transferability because it is focused on the context of Aboriginal and non-Aboriginal subjects. The study is confirmable because it lists the details of what was asked on surveys, the coding for comments from subjects, and a detailed scale of the answers. This study is not aligned with this paper's question, however. On that basis this study is considered weak.

This section reviewed studies that concluded exposure to the arts improves student confidence and therefore their academic achievement, however a majority of the studies in this section included several weaknesses. The strongest study, Smithrim & Upitis (2005) started this section with qualitative research that used a large sample and random selection. The study concluded that students attending Learning Through The Arts schools showed greater engagement in school. Next came the Demirel (2011) study that examined the impact of visual arts lessons on elementary students' self-confidence, mental development, and social development. This study included a main weakness in that it depended on four teacher interviews, and included few specifics.

The Hope (2007) study of whether students with low grades and low motivation followed. This research quoted students as saying their connection with music in classes meant "enjoyment" and "freedom," however the study failed to include details on data gathering and analysis procedures.

The final two studies of this section are Dowson and McInerney's (2003) research of Australian middle school students' motivational goals and McInerney's

(2001) study of how students connect motivational goals, self-concept, and academic achievement. Neither study aligns with this paper's research question. Therefore, they are not strong examples for this paper.

### **Artistic expression fails to influence language arts achievement**

The previous section contained studies (Smithrim & Uptis, 2005; Demirel, 2011; Hope, 2007) describing how exposure to the arts can increase a student's self confidence and positive attitude toward school. This positive outlook impacts the student's ability to engage in the school environment, which leads to better grades, higher test scores, and increased academic achievement. The previous section illustrated how the arts can impact a student's attitude, and thereby affect the student's academic achievement.

The section that follows covers five studies claiming a student's exposure to the arts failed to impact the student's academic achievement in other curriculum such as language arts (Costa-Giomi, 1999), or that academic improvements increase initially and later dwindle (Catterall & Waldorf, 1999). While other studies showed that exposure to the arts only correlates to improved understanding of artistic techniques and conventions (Pitts, 2007; Albers & Murphy, 2000).

This portion of the paper begins with an exploration by Harland, Kinder, Lord, Stott, Schagen, and Haynes (2000) of whether arts involvement heightens test scores, followed by the Costa-Giomi (1999) investigation of Canadian fourth-grade pianists tested on spatial and verbal cognition. The next examination reviewed is the six-year Catterall and Waldorf (1999) study based on a Chicago integrated arts program. A case study by Pitts (2007) of musical theater participants follows.

Albers and Murphy (2000) research on the “art literacy” of sixth graders completes the section.

In a qualitative case study, Harland, Kinder, Lord, Stott, Schagen, and Haynes (2000) examined data from students, teachers, school officials, and classroom observations to determine if arts involvement heightens test scores, and found that it does not. The case study covered five United Kingdom secondary schools with strong arts reputations, and pursued annual interviews with two cohorts of students, each with 79 members, as well as interviews with arts teachers, and observations of arts classes. In addition, the study distributed questionnaires to 2,269 students in 22 schools related to exam performance. Students reported positive non-artistic effects from arts education, such as enjoyment, tension relief, learning about social and cultural issues greater self expression, and confidence. However, the scores of the national exams showed no evidence of an increase in academic performance.

This study showed credibility in terms of the researcher describing the data gathering and analysis, and in terms of the triangulation present with it various data sources ranging from interviews to test scores, which are strengths. Other strengths are the study’s dependability because it is consistent with similar studies. The study uses five schools, and a high sample number, therefore it is transferable. Also, the study’s process, data collection, and analysis are confirmable. This study is strong.

In a quasi-experimental quantitative study, Costa-Giomi (1999) investigated the cognitive results for a group of 117 Canadian fourth graders given three years of piano lessons, and found that the musicians scored better on spatial tests but not

different in verbal abilities. Researchers pretested students, who were divided into a control group of 50 children from 12 English-language schools and an experimental group of 67 students from 11 English-language schools in Montreal, Quebec. The study considered research that most students and families who participate in piano instruction come from predominantly Caucasian, upper-middle income, well-educated families, therefore this study tried to control for those factors and contacted students whose families earned below \$40,000, had no piano at home, and had no formal music training. The idea was that students who seek out music lessons may differ from those who never seek out such participation.

Researchers tested all students on their cognitive abilities with the appropriate grade level Canadian Achievement Test after the first, second, and third years of lessons to see if the piano instruction had an effect. Test results showed significant differences in the cognitive scores of the control and experimental groups after two years of instruction ( $p=.05$ ), however no differences between groups showed up prior to the treatment, after the first year, nor after three years. Test results on verbal abilities showed no significant difference in any year. The study's strengths include its consideration of history, maturation, testing, instrumentation, and when the results failed to show growth in two of the three years the researcher investigated the possibility of regression, however that was not verified. The sample selection was partially randomized, and the large sample size kept subject attrition from destroying results. Overall this is a strong study.

In a qualitative study, Catterall and Waldorf (1999) investigated data from 37 Chicago elementary, middle, and high school teachers and students over six years

(from 1992-1998), and found students involved in an integrated arts program performed better academically. However, the increased results for students who participate in artistic endeavors dissipated by high school. Researchers used surveys, classroom observations, interviews, focus groups, document review, and case studies to gather data from teachers. In addition to surveys, researchers used standardized test score results from a national basic skills test and the Iowa Test of Basic skills to gather student data. Fifty-four percent of teachers involved in developing arts-integrated units reported that they developed one unit, and 24% reported creating four to five units. Units last from 4 to 6 weeks, are developed alongside an artist, and incorporate the art form with an academic teaching objective.

The study gathered data from a standardized reading test (Test of Achievement and Proficiency or TAP) for ninth graders. The results are reported in years and months, for example an 8.5 grade level means a typical performance level for 8<sup>th</sup> graders in their fifth month of school. Ninth graders at the arts integration schools averaged scores of 9.5, while 9<sup>th</sup> graders at comparison schools without the arts program averaged a full grade level lower, at 8.5.

Results showed that 94% of elementary school children, 50% of youth in middle school, and 86% of high school students responded with “yes” when asked if they enjoyed lessons in the arts and if these lessons made learning fun. Higher trends in reading and math test scores emerged at 17 schools with the arts integrated program than at the 17 schools without the program, however the study said the difference was not statistically significant due to the small number of high

schools with the integrated arts program, as opposed to the number of elementary and middle schools with the program. The study provided no p-values.

This grounded theory details 52 test score analyses comparing schools with the arts integration program with schools of similar demographics and environments that did not house such a program. Researchers conducted comparisons at every tested grade level: 3, 6, 8, 9, 10, and 11. The Catterall and Waldorf (1999) study can be transferred to similar settings because the data gathered is unbiased and based on state and national standardized tests. Also, researchers considered details of the student populations such as ethnicity, percentage of students who qualify for free and reduced lunch, how students performed at schools on the same tests in years previous to the program's initiation, during the program's initial stages, and years later after its integration. The study fell within reasonable limits of other studies, which bodes well for its dependability. The details of the study, the way in which data was collected and analyzed can be easily audited.

Researchers used surveys, observations, interviews, focus groups, document review, case studies, and standardized test score results. This supports triangulation because of the multiple perspectives of data sources. This is a strong study.

In a qualitative case study, Pitts (2007) investigated why about 200 students at an affluent, homogeneous all-girls secondary school in England participate in musical theater, and found that students enhanced their skills, learning, and social interactions during productions. The researcher gathered data through surveys, four student audio diaries, and observations of rehearsals and performances. Pitts

received completed questionnaires from 35 participants and 163 non-participants, who ranged in age from 11 to 15. She chose the school because university music students had been placed there due to its active performing culture.

The survey statements for participants included: "I have been in similar shows before and enjoyed them;" and "I wanted the opportunity to perform on stage," which the students would respond to based on their level of agreement. Non-participants could choose from such statements as "missed auditions" or "disliked choice of show." Students learned choreography, performance, and relating to an audience. Some students pointed out the positive social interactions of working with others on the production of "Anything goes."

This study has several weaknesses. The researcher does not clearly describe her decision-making process for what is included and excluded. The researcher does not account for checking findings with participants before publishing results. The study showed an inability to transfer its findings because the sample is so unique and limited. It is challenging to rate its dependability because it is dissimilar to other studies, and therefore its findings are inconsistent. Confirmability is possible, however overall this is a weak study.

In a qualitative study, Albers and Murphy (2000) examined data from 18 sixth graders, and found that students can develop a more detailed understanding and art "literacy" by creating it. The researcher started as an "observer-participant" but became a "participant-observer" because she felt welcomed by the students at the school. The students invited her into conversations and asked her for comments on

the construction of their artwork. The researcher interviewed and observed students, and examined artifacts created by participants.

The study has several weaknesses, including how the researcher selected the school site. The researcher explained that she connected with a middle school art teacher, and approached her school administrators about being involved in a study with 6<sup>th</sup> graders and art class. The school agreed. The school, located in a Midwestern town of 15,000, is described with a student population that is 95% white and predominantly evangelical Christian. The school's lack of diversity and its small town setting limits the transferability of the study. Other weaknesses are its lack of dependability and confirmability. One strength of the study is its credibility in terms of the researcher clearly describing data gathering and analysis procedures, however no reference is made regarding whether member checking occurred before publishing. Overall this study is weak.

This final portion of the paper's literature review included several strong studies that concluded a connection between the arts and improved academic achievement language arts could not be proven. This section started with Harland, Kinder, Lord, Stott, Schagen, and Haynes (2000) investigation of whether the arts can improve test scores, which its research concluded it does not. However, this strong study of two cohorts showed students involved in the arts increased their enjoyment, tension relief and confidence. Another strong study in this section followed. Costa-Giomi (1999) researched how Canadian fourth-grade pianists tested on spatial and verbal cognition and found the musicians scored higher on spatial reasoning, but not verbal cognition.

Next came the Catterall and Waldorf (1999) six-year study on a Chicago integrated arts program that discovered that initially students at the arts schools scored higher academically, but later, in high school, basic skills test scores aligned regardless of whether students were exposed to arts integrated programs or not. A case study by Pitts (2007) of musical theater participants and Albers and Murphy (2000) research on the “art literacy” of sixth graders conclude this section. Both studies gathered data from small, and unique samples, and both studies failed to explain whether member checking occurred, which became acute weaknesses.

### **Summary**

A majority of the studies reviewed in this paper’s first section portray a positive correlation between students’ academic achievement and experiencing artistic tasks, either through personal performance, production, or through viewing artistic performance. A correlational-quantitative study by Gouzouasis, Guhn, and Kishor (2007) contained in this section found a positive correlation between achievement in music courses and achievement in core academic subjects including English. Another study in this section by Vaughn and Winner (2000) analyzed 12 years of national SAT data and concluded that students who took arts classes scored higher on the SAT with those in acting exhibiting the highest verbal SAT scores.

Another layer of studies in the second section illustrated how arts education when incorporated into classes and lessons of other subject areas improves students’ abilities in those skill areas. An example from this section includes Redfield’s (1990) qualitative examination of data from students, teachers, parents,

artists, administrators and coordinators that found that students who participated in the artist-in-residence program improved their written and oral communication skills, and self-confidence.

A third section found that increased exposure to the arts does improve student self-confidence, engagement in school, and enjoyment. For example, the Hope (2007) study found students enjoyed their classes, but a correlation to improved academics was not covered.

A fourth group of studies, most of which are elapsed over time, showed either no correlation between the arts and academic achievement in language arts, or, as in the case of Catterall and Waldorf's (1999) six-year study, initial positive results later subsided.

## CHAPTER 3: CONCLUSION

In Chapter One, the question's discussion began with the rationale, controversy, and historical context regarding arts education and its potential benefits and detractions in the American schooling system. Chapter Two delved into studies on the subject grouped by four main outcomes. The first section included studies that correlate student participation in visual arts, drama, music, or dance, or even observation of these disciplines, with the students improved in other academic areas. The section contained research that connected student participation or exposure to the arts within the classroom, as part of the lesson, with academic achievement. The third section related to studies that found when students experience artistic expressions, then their attitudes become more positive and their self confidence expands and that improved self image influences the students overall academic performance. The fourth and final section included studies that determined arts education does not relate to academic achievement in other areas at all.

This chapter will summarize the findings, describe implications for classroom practice, and suggest further research.

The major findings in Chapter Two are that arts education and exposure can improve a student's academic achievement, however depending on the specifics of the transfer of knowledge, the results in academic improvement differ. Studies involving music show the greatest cognitive gains, and studies focused on drama show consistent connections to language arts. Drama is a technique used to engage students in storytelling, or exploring more personal connections with

literature. Studies related to drama show consistent transfer to emotional feelings and confidence, but not necessarily as high a gain in cognitive aspects, such as improved standardized test results. Studies related to visual arts ranged from illustrating how drawing can help students better conceptual scientific laws to how it can enhance a student's understanding of a story's message and structure.

Research illuminates a wide array of legitimate academic benefits that result from engagement with the arts (Catterall, 2002). Catterall (2002) highlights that drawing aids in developing the content and organization of writing, and that instruction in visual art connects to reading readiness. Music listening develops a student's quality of writing, and reading music relates to reading texts because they both involve notations that represent specific sounds and one must learn to distinguish each separate representation (Butzlaff, 2000).

Gouzouasis, Guhn, and Kishor (2007) study emphasized that time spent on arts is not time "wasted" simply because it is not spent on a core subject such as language arts.

### **Classroom Implications**

Based on the majority of study results, the classroom implications are that educators should create opportunities for students to become involved in artistic expressions throughout their academic careers. Students within the language arts classroom who are given chances to sing, dance, perform drama, draw, and communicate in other artistic ways will only enhance their learning in that subject. Students learn when they are engaged. Students who are allowed to express themselves freely and creatively are acutely engaged. Art is subjective, and that is

what makes people connect personally with what they see, hear, feel, and produce. Art offers students and educators another channel through which new knowledge can pass.

“Acknowledging the difficulty of moving the young to bestir themselves to create their own projects or find their own voices ... we must make the arts central in school curricula because encounters with the arts have a unique power to release imagination. Stories, poems, dance performances, concerts, paintings, films, plays – all have the potential to provide remarkable pleasure for those willing to move out toward them and engage with them,” wrote Greene in 1999’s *Releasing Imagination* (p. 28).

Drama can be used to help students remember and connect to new vocabulary words, as well as better understand narrative stories. Visual arts can help readers comprehend imagery, and develop an understanding of characters, plotlines, and other obscure aspects of a story that illustrations can help make concrete and bring to life. Music in the language arts classroom can create an atmosphere that encourages writings to relax and allow their creativity to flow.

Greene and others unlocked potential for using the arts in the classroom not just to promote other subjects, and to teach students the discipline of drawing, for example, but the arts could release other lessons of life for students. Greene connected developing one’s imagination to developing one’s connection to community and emerging empathy. “I would suggest again, however, that it may well be the imaginative capacity that allows us also to experience empathy with

different points of view, even with interests apparently at odds with ours” (Greene, 1999, p. 38).

Findings of studies in this paper should persuade educators to integrate artistic approaches into the language arts classroom to improve academic achievement. The research by Wolf (1998) found that dramatic coaching further developed the reading skills and positive attitudes toward reading of third- and fourth-grade students. Study subjects included students reading below grade level and students with special needs. Results of the Walker, Tabone, and Weltsek (2011) study concluded that 1,000 sixth- and seventh-grade students improved in their language arts performance when lessons infused theater strategies. Data culled by Edens and Potter (2001) from 184 fourth- and fifth-grade students showed that when students drew pictures related to their lesson they scored higher on the posttest. Also, Kariuki and Honeycutt (1998) discovered that listening to music did motivate two emotionally-disturbed, elementary students.

### **Suggestions for Further Research**

Some studies have shown that the positive impact on academic achievement attributed to arts education dwindles over time (Nantais and Schellenberg, 1999). The idea that initial results from a Mozart effect fade should be investigated further, as should the trend Catterall and Waldorf’s (1999) six-year study showed that initial improvements in academic achievement among musicians when compared to non-musicians subsided in the high school years.

Another area of research that is lacking deals with focus on the language arts classroom, and a focus on older students. A plethora of the research regarding arts involvement relates to music and mathematics, music and spatial concepts, and incorporating music into the elementary classroom. It is rare to find studies that highlight connections between music and language arts, or with music being used in language arts classrooms with adolescent students as opposed to students of younger ages. Another rarity is research regarding the use of drama, or dance as a vehicle for education in middle school classrooms.

### **Conclusion**

The connection between artistic expression and other intellectual pursuits exists, according to Dewey and other educators. This paper sought to answer a question that deals with a subset of that idea, "What effect do the arts have on adolescent academic achievement in language arts?" Several studies illustrated that the resulting effect is an improved academic experience across several disciplines, including language arts. Some studies focused on language use, reading, writing, and even building new vocabulary terms.

Some studies highlighted that students' improved state merely applied within the arts discipline being taught. Some studies aimed at proving the idea of transfer from the arts to other disciplines, or vice versa. The argument for arts education is all of these. Artistic expression enhances other forms of learning. It is a language that some students speak more fluently than others, and therefore it is a resource that could be brought into the classroom and used to benefit those who are alienated by some less complex approaches to teaching reading, writing, and vocabulary.

The Walker (1995) study emphasized brain networks and how the training in the fine arts can develop and enhance the connection of right and left brain hemispheres. As education theorists push for more holistic approaches to teaching children, these efforts to have American schools encompass all disciplines equally appears to only help our students grown into more well-rounded, more empathetic, better educated, and artistically enhanced citizens of tomorrow.

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