Running Head: THE EFFECTS OF VISUAL ART INTEGRATION

The Effects of Visual Art Integration On Reading at the Elementary Level: A Review of Literature

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Abstract

Although visual art is considered a subject deemed by the federal government as part of the core curriculum, many elementary schools do not include this subject into the current core curriculum of studies. This review of literature provides insight through current qualitative and quantitative studies on the effectiveness of including visual art into the core curriculum and it's impact on reading at the elementary level. Research compiled to reveal the importance of including visual art into the core curriculum and the results of brain-based research on teaching visual art to children. The review also ties together the effects of a core curriculum which includes visual art and it's effect on emergent readers, reading comprehension, and reading test scores. The review concludes with implications for further studies and final thoughts about visual art integration into the core curriculum.

The Effects of Visual Art Integration on Reading at the Elementary Level

"To learn to read is to light a fire; every syllable that is spelled out is a spark"

Victor Hugo, *Les Miserables*

Victor Hugo's words concerning reading resonate among many educators teaching young children. If a child can read, his or her world is opened to a whole new area of knowledge. Students who are literate are able to understand the complexities of literature, mathematics and the sciences. Researchers and educators alike agree that literacy is of the utmost importance for a successful educational experience for a student. The fundamentals of reading and language arts are part of the core curriculum of studies deemed important by the federal government. Wixson & Durtro (1999) confirmed this importance on the focus of reading and literacy when they stated that "growing concern for the literacy abilities of youth in the United States has led to increased attention to issues surrounding early reading curriculum, instruction, and assessment. Attention to these issues is manifest in many ways, including the development of state standards aimed at promoting early reading acquisition" (p. 89).

Educational standards that are used by schools are primarily focused on the aspects of learning to read in traditional models of teaching. Marlow, Inman & Shwery (2005) noted the relationship between research-based methods and standards when they stated that "this emphasis on research-based methods has lead to increased attention regarding reading and literacy standards" (p. 179). The act of teaching reading is performed every day in schools around the nation.

Visual art is also a subject that is considered as part of the core curriculum by the federal government. Diket (2003) confirmed the subject of art as a core curriculum when stating that "the arts are among core academic subjects under the No Child Left Behind Initiative, which provides assistance for arts education as an integral part of elementary and secondary school curricula" (p. 174). Even though the fine arts and visual art in particular is a subject that is considered part of the core curriculum, many schools have put the subject of art to the side in order to focus on the curriculum that is deemed important for improvement in standardized test scores. While standards exist for visual art, "the arts survive at the margins of education as curriculum enrichments, rewards to good students, or electives for the talented" (Rabkin & Redmond, 2006, p. 60). Many schools cannot take the time or provide the funds to totally integrate visual art into their curriculum. "The arts are often perceived as the "icing""[sic]" nice if you can afford it, but dispensable if you can't" (Manner, 2002, p. 18).

Some schools that have embraced visual art within their core curriculum have used art integration throughout the school day. Art integration is "an instructional strategy that brings the arts into the core of the school day and connects the arts across the curriculum" (Rabkin & Redmond, 2006, p. 60). Manner (2002) stated that "curriculum integration is not a new idea, but it bears re-examination in schools today, where standards-driven academic concerns may require educators to look at school subjects in isolation rather than in ways that enhance perceptions of their connections" (p. 18). Studies using art integration strategies have been consistent in their suggestions that these strategies help with academic achievement as well as other areas of education.

This review of literature brings together the current research addressing the effects of visual art as it relates to reading, with particular emphasis given to studies on emergent readers, reading comprehension, and standardized testing at the elementary age level. Eisner (2005) stated that "the arts capitalize on the emotions and the use of them to make vivid what has been obscured by the habits of ordinary life" (p. 11). If this is perhaps true, does the integration of visual art make vivid or enhance reading skills in children to become literate, comprehend sufficiently and do better on tests more so than the traditional model of teaching reading.

Methods

This review consists of a range of studies that investigated the importance of visual art as well as brain-based research relating to visual art and it's positive or negative effect on emergent readers, reading comprehension, and testing. The literature was found through searches of ERIC, First Search, WilsonWeb, and Digital Dissertations. The keywords that were used in various combinations included: "fine arts," "visual arts," "reading," "spelling," "student success," "grades," "emergent readers," and "reading comprehension". The results were narrowed to include documents that were only relevant at the elementary school level. By reviewing research involving reading and visual art, we can capture a better glimpse of the specific ways in which the enhancement of reading curriculum with visual art can be connected.

The Importance of Visual Art in the Curriculum

Even though visual art is not truly used as a core curriculum subject today in most schools, there are several areas of research that tend to show that integration of art in

schools causes growth in academic achievement. In the National Education Longitudinal Study in 1988 researchers found that there was a correlation between students who were given art instruction and an increase in academic testing. "In school after school, well-designed arts education has increased test scores, teacher and student attendance, graduation rates and decreased discipline problems" (Department of Education, p. 3, 1994). April (2001) also found that "the arts do indeed increase students' achievement when achievement is conceived in rich and complex ways-authentic connections between the arts and the rest of learning...." (p. 26). Cooper-Solomon (as cited in Richards, 2003, p. 20) stated, "if the curriculum of a school would devote 25% or more of it's school day to teach the arts, students would have superior academic ability" (p. 20). Heath (2001) also found that students who participate in art can be predicted to have better achievement in higher education.

Yet, within the research of art and it's connection with academic achievement, what does the literature state about visual art integration strategies and the achievement of students in reading? The research shows that overall achievement tends to be better with the integration of art but what about specific subjects of study? "Hetland and Winner (2001) analyzed 188 reports and found some areas where fine arts involvement improved academic achievement and some areas where they do not have significant influence on academic achievement" (Richards, 2003, p. 20). Is reading one of the core subjects that is enhanced by art integration or not? Engelmann & Osborn, (1999) and Adam et al. (2000) found that "learning to read is a complex process. It involves students' knowing how to manipulate symbols (letters) of the alphabet in concert with the fundamental

concept and principles of the language of the teacher, the classroom, and that which is used in their textbooks" (Richards, 2003, p. 21).

Brain-based Research on Visual Art

The integration of visual art has shown to help with overall achievement due to the implementation of a curriculum that encompasses all the intelligences that a student can use. Moran, Kornhaber & Gardner (2006) described a students' cognitive ability as multiple facets of learning as they stated that "it is more fruitful to describe an individual's cognitive ability in terms of several relatively independent but interacting cognitive capacities rather than in terms of one single general intelligence" (p. 23). A commonality among many of Gardner's nine intelligences, which include: linguistic, logical-mathematical, musical, spatial, body-kinesthetic, naturalistic, interpersonal, intrapersonal, and existential, stem from artistic tendencies (Gardner, 2006). Gardner stated that "several of the intelligences have an artistic flavor" (Gardner, 2004, p. 213). Vygotsky (1971) also found the importance of man's relationship to art when stating that "psychological investigation reveals that art is the supreme center of biological and social individual process in society, that it is a method for finding an equilibrium between man and his world, in the most critical and important stages of his life" (p. 259).

Richards (2003), after working with teachers to implement art into the curriculum found that, "not everyone learns in the same way, and in our society some children are left behind because their logical/mathematical and verbal/linguistic intelligences are not developed" (p. 23). Richards goes on to state that children who are involved in art at an early age are able to develop their intelligences to help them do well in core subjects at

school. The problem is that many schools are not focused on the personal learning styles of the children they teach due to the lack of resources for learning how to measure differing styles of learning. "Traditionally, schools have recognized and rewarded verbal-linguistic and logical-mathematical intelligences. We cannot as easily measure such other intelligences as intrapersonal and naturalistic; however, these intelligences can serve as foundations for better instruction and deeper emotional engagement of learners" (Caulfield, Kidd, & Kocher, 2000, p. 63). Because of this problem of standardized measurement of art, schools are pressured to focus only on core curriculum that is measurable.

Even though schools may be timid to transition to more brain based practices of teaching, research on the subject has shown to be positive. Research was conducted by Caulfield, Kidd, & Kocher 2000 in a high performing school in Kansas city that implemented a total change of their school from traditional practices in teaching to a focus on "brain-compatible practices". Valley Park Elementary school was used because it had already scored above the national average on their standardized testing. The Valley Park staff were in-serviced and trained in neuroscience research as well as transformed a culture and classroom practices that incorporated 'brain-compatible instruction". The staff incorporated art, music, and physical education into their daily core curriculum while collaborating with specialists in brain-based teaching. Although teachers and parents were hesitant to totally change the culture and curriculum of the school, the results were positive. The school utilized three assessments: the Gates-MacGinitie Reading Test, the Heath mathematics test and the Iowa test of basic skills.

Overall test scores in reading and math increased based on four years of data taken during the process of change at the school. Reading tests on the Iowa test of basic skills remained similar, yet there was a significant gain in math. "Overall, the results from the three measures support the premise that a school can be transformed into a more enriched environment without introducing negative effects in reading or mathematics learning" (Caulfield, Kidd, & Kocher, 2000, p.65).

A qualitative study conducted by Creel (2005) looked at two semesters of data regarding third, fourth and fifth graders and the implementation of an art curriculum. The study had to do with the implementation of an environmental art curriculum and it's effect on at-risk students. She found that the imaginations of children could be being neglected due the high priority of standardized testing. When there is better balance for students, the research shows that academic achievement is greater. A study of the past medical and psychological research of the brain was conducted to correlate physical hemispheric function as it relates to the education of elementary and secondary students (Bockert, 1980). Bockert (1980) stated that when curriculum is using both hemispheres of the brain, children are less fatigued, have better visual thinking and self-esteem. Visual art gives some training and balance to the brain that is necessary for a student to achieve.

Effects of Visual Arts with Emergent Readers

Art can be a universal language for students who cannot yet read or are emergent readers due to language barriers (Linderman, 2004). Those students who are emergent readers can include students who are just starting their academic career or ones who are

older and are second language learners. As Linderman stated, both of these types of emergent readers can begin their journey towards literacy with visual art as a universal way of gaining knowledge and understanding before the concept of reading is mastered.

Richards also stated that "being literate in the arts affords students a greater advantage in learning to read" (p. 21). Richards goes on to state that "lines enhance the writing of letters and the training of the eyes to be accustomed to the unique rhythm in reading" and that "the identification of letters and words are associated with positive and negative shapes" (p. 21). Manning (2004) stated that "we know that there are students who have difficulties with oral and written language but are able to illustrate their ideas about the meaning of the text" (p. 91). This aspect of study is supported by the fact that small children are usually able to point to pictures before they are ever able to recognize letters, sounds or words in conjunction with reading.

Along with drawings or illustrations to help emergent readers, the introduction of visual art pieces have shown to have a positive effect on literacy. Allan Richards, who is a professor of art education at the University of Kentucky, was working with a school long term to help them include an art program that made connections to reading and writing for students in their school. Richards (2003) found that:

> kindergartners and first graders learning to read have the tendency to look at the first letter of a word and call out any word that begins with that letter. But young art students would look at the entire word the same as they look at art pieces and quickly try to put meaning to it. They do the same with sentences and soon become fluent readers with sound comprehension skills" (p. 20).

After working with the Fayette County Public Schools in Kentucky to integrate the arts, Richards found that "at the end of the 1998-99 academic school year, test results show that approximately 90% of the kindergartners who were involved with the arts literacy strategy read on or above grade level" (p. 19). This observation was astounding, although no formal quantitative study was conducted to attribute the growth to other areas such as teaching quality or parental involvement. During his time at the Fayette County Schools he found that "the emergent kindergartner and first-grade readers who study the elements of art, the principles of design, and then the study composition in art remove the guessing game from decoding a word or sentence" (Richards, 2003, p. 20).

Deasy (2003) also found that "certain forms of arts instruction enhance and complement basic reading instruction. They help children break the phonetic code that unlocks written language by associating letters, words, and phrases with sounds, sentences and meanings" (p. 16). A quantitative study was conducted by Johnson (1976) to compare two programs on the development of visual perception and reading in first grade. One hundred first graders were used in the study and were assigned to four different groupings dealing with art and the development of visual perception along with a control group. Findings from this study indicated that after the 15 week program, there was no significant difference in reading achievement. There were significant differences between the groups and the control for figure/ground discrimination.

Visual Arts and Reading Comprehension

After a student is able to master letter to sound recognition and can decode words and sentences, the area of reading comprehension becomes the point at which students

gain knowledge through reading. "The process of reading textbooks often relies on dual coding of word and visual text. Literature in elementary schools uses images to convey important ideas beyond the vocabulary of young readers; newspapers ad magazines use similar techniques" (Diket, 2003, p. 176). Richards (2003) found that "comprehension is enhanced when children know their colors. By knowing their colors, children are able to identify and link objects to words in the text, i.e. the purple cow. This connection is important because it helps students to better understand what is being said in the written text". (p.21)

A mixed-method study conducted by Free (2004) found that illustrations done by the researcher or the student helped students with reading comprehension. The study found that there was a significant increase in reading comprehension with illustrations versus non-illustrations and more test answers were correct. The study also found that African American students as well as students with reading disabilities had greater improvement than the other students in the area of comprehension with illustrations. This supports the case of visual art integration due to the help that it provides for students in the area of reading comprehension through illustrations.

As illustrations have been shown to help students with reading comprehension, the history of certain pieces of literature tied to famous illustrations of art can bring prior knowledge that may be helpful in comprehension for a student. While teaching students art, Richards (2003) found that students "develop an understanding and appreciation for art and classical music that spill over into a passion for reading literature" (p. 20). Diket (2003) reported that "artistic activity also carries narrative possibilities and historical

connections beyond the object" (p. 174). "If we were reading about ancient myths, we looked at the famous works of art that have depicted those stories for centuries" (Manner, 2002, p. 18). These famous art pieces that depict times in history are visual reminders to students who may have trouble with comprehension on just the text alone. These works of art when used in instruction serve two fold in the appreciation of fine art and the tool for a student that needs visual reminders for recall of details in a story.

Simple illustrations can also provide help for students in the area of reading comprehension. Goldstein (1986) found that students who used cartoons and comic strips in reading instruction improved in standardized test scores. He found that students liked the material of comic strips and that they were easy to find. Brown (1982) also found through a quantitative research study that the use of student made comics with reading helped assist students in reading comprehension. Thirty-six fourth and fifth graders of differing reading levels from a middle-class public school were used in the study. Four measures were used in the study to understand if skills in reading comprehension were attained with significant differences between groups. The four measures consisted of one standardized test and three criterion referenced tests made by the researcher. Findings suggest that the experimental group performed significantly better than the other group on two of the post tests made by the researcher. Brown (1982) concluded through case studies that high readers may do better in comprehension due to strong adult support at home where lower readers do not have the support they need.

Cornett (2006) also stated that when children are able to make mental pictures by using art concepts, they are able to have better visual imagination and stronger

comprehension skills. She contended that the areas of "color, shape, line, and texture" of art all help reading comprehension by forming pictures in the minds of students (Cornett, 2006, p. 238).

Visual Arts Effect on Reading Test Scores

Tests that concern reading or language arts in elementary schools usually relate to unit tests, district tests and standardized testing, These tests give the teachers, districts, and states a sample of how the student is performing and learning. Research in the areas of testing students and visual art tends to be small due to the fact that visual art and testing do not usually coincide with each other. "Typically speaking, we do not tend to associate artistic activity with the more cool, calculating, and, for some, rational character of scientific investigation" (Eisner, p. 9, 2005). Yet, some studies have looked at the correlations between the infusion of a visual art program within the core curriculum of reading and the aspects of the testing that had taken place afterwards.

A quantitative study conducted by President (1999) looked at the infusion of visual art and its correlation to improvement of reading test scores among third graders. This study used a sample of twenty-five students from an inner city school in Washington D.C. in which students in a control group were taught with experimental visual art materials infused for seven months. The study found that there was an increase between pre and post SAT 9 scores among the control group and the group being given the visual art infused program. Although, the experimental groups growth was higher than the control group. This study shows that the growth between the groups may not be significant enough to attribute it to only the visual art infused program.

A quantitative study conducted by Godin (1999) investigated the correlation between an art integrated program for second and third graders at low socio-economic schools and it's influences on test scores in reading as well as other subjects. The study found that students in third grade had a higher mean average on reading tests than third graders taught with traditional curriculum, although the results were not significant at the .05 level. The results also found that an art integrated program did not affect the mean of test scores for second graders. This study also showed that there is not conclusive evidence that an art infused program is superior to the traditional methods of teaching reading.

In a review of one school in Bedford, Texas, that moved art education into the core curriculum, Chapman (1998) found that students were performing better. Skills were continuing to improve on the Texas Assessment of Academic Skills in reading as well as in other core areas. Bezruczko (1997) also found that students performed better on achievement tests when they were provided visual art instruction. Two studies were conducted in schools and the correlation of achievement testing outcomes. The design for this study included 201 kindergartners and third graders from four public schools in one urban area in which two schools provided some supplemental visual arts instruction, one provided art integration, and the last provided no arts program. The use of clay models created by the children were correlated to their results of the Iowa Test of Basic Skills. The results showed that the third grade students who were trained in the arts showed positive correlations with reading scores as well as scores in other subjects. The second study examined the reading scores of the sixth graders in a six-year longitudinal

cohort of 414 students. Findings concluded that students who were trained in art scored higher than students that were not.

Implications for Further Research

While looking for pieces of research to add to this review of literature, there were no studies that concluded that the inclusion of visual art resulted in lower reading achievement. Even after actively searching for research against teaching visual art to children, there was nothing found to support eliminating visual art from the curriculum. Although some research found that there was no change in the achievement in reading through the integration of a visual art program versus a traditional program of learning. Among the studies that were found that related to emergent readers, comprehension, and testing, there was found to be success with art integration is some areas and not in others. In the areas dealing with emergent readers, the act of integrating art was found to be helpful to students learning to read at the fundamental level. Students are able to grasp concepts of letter sounds and vocabulary with tangible pictures.

In the area of reading comprehension, the integration of art also was found to be helpful in bringing mind recall with visual cues to aid comprehension of material read. The use of formal illustrations as well as student generated illustrations helped in the process of reading comprehension. Results from research also showed that famous pieces of art tied to historical stories also promoted the enhancement of comprehension for students in reading. The use of comic strips and interesting pieces of art that are fun for students showed to help students with the comprehension of sentences also.

Research showed that the use of visual art in reading comprehension helped students with disabilities and those from low socio economic backgrounds more than other students.

In the area of standardized testing in visual art, there was marginal growth among students who were taught with visual art integration. The growth of the students did not seem to be deemed significant enough to attribute the growth alone to the integration of an art curriculum. The research did find that students from low-income areas and students with disabilities tended to show the most growth with the integration of art in the core curriculum of studies. Catterall, Chapleau, & Iwanaga (1999) also found that test scores of students that participated in art was highest among students that were at the lowest socio-economic level.

Future research in the areas of visual art and its correlation with reading need to focus on more involved quantitative studies of students that are educated in art integrated schools. Longitudinal studies would be helpful in determining precise growth in areas regarding emergent readers, comprehension, and testing of the same groups of children. Also studies need to factor in extraneous variables other than art integration that could be influencing experimental groups student achievement and test scores in reading. Since many of the studies also focused on students that were in low socio-economic areas or students considered "high risk", it would be fruitful to investigate the influence visual art might have on students from a broader band of socio-economic status.

Studies in the future should focus on the comparison of student achievement among students in high to middle socio economic areas as compared to students in lower income areas. Also differing communities need to be compared that are using visual art

integration in their current curriculum to see if significance in achievement occurs in both communities of learners. Studies that focus on the comparison of both groups will lessen the doubt of visual art integration's positive effect on only "at risk" students or bring clarity to the debate that the integration of visual art in the curriculum is only beneficial to students in lower economic areas.

Final Thoughts

Teaching in general is a hard and satisfying job that requires multi-tasking of curriculum objectives, quality student interaction, assessments. In today's schools, the standards driven curriculum that is required by the states gives a good guideline for teachers wanting to cover material so students can learn and progress through their school career. But with a standards driven curriculum much is lost in the aspects of art as well as other subjects that may be considered "supplemental subjects." "Lost in most academic disciplines is the obvious notion that our hands want real work to do, meaningful work, making things-work in which hands, rather than head, take the lead and decide where to go and what to do" (Anderson, 2004, p. 36). Are we hurting our students by not considering these subjects as important?

The research has shown that for the most part a visual art infused curriculum has helped children in reading as well as other subjects. Yet much of this success may be that curriculum is being taught in such a way that students are able to learn based on their own intelligence and therefore learn at a better pace. By excluding certain subjects we are therefore deemphasizing the certain intelligences that children are gifted with to learn.

Teachers may become frustrated due to the daunting thoughts of trying to individualize curriculum for each child and their own intelligence. Yet Gardner and his colleagues find that integrating art and other subjects that cater to student's intelligences need not be hard. "The multiple intelligences approach does not require a teacher to design a lesson for nine different ways so that all students can access the material. Rather, it involves creating rich experiences in which students with different intelligence profiles can interact with the materials and ideas using their particular combinations of strengths and weaknesses" (Moran, Kornhaber, & Gardner, 2006, p. 27).

This review of literature addressed only the visual arts, yet students have many more intelligences that may be helped or hindered by the effects of such a program. That is why it is important to include all areas so that children are able to maximize their full potential as a student and feel success in the meantime. Just like students, teachers are also gifted with differing strengths and intelligences. Teachers need to understand their intellectual strengths and get help from professionals for the areas that they are not as familiar with. Rabkin and Redmond (2006) suggest giving teachers more time to plan with various professional artists and compensate the artists for their skills. "Infusing art takes practice and some initial consideration, but becomes a natural part of teaching when implemented consistently. It is natural, because it is our nature to depict through artistic means what we encounter in life" (Manner, 2002, p. 19).

Until we are able to break free from a standards driven curriculum that only includes certain subjects we will not be able to mold the minds of those students whose intelligences are not included in these "core subjects." The aspects of visual art alone has

been researched as helping students in reading as well as other subject areas. "The best art integration programs are developing a strategy that is helping to close the achievement gap even as it makes schools happier places. These programs' successes demonstrate that this strategy is within reach of most schools, even those in the poorest communities" (Rabkin & Redmond, 2006, p. 63). With the inclusion of other fine arts, sciences and physical education many of those children that are lost can find success and a reason to continue with their educational career.

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