

Why Are We Doing Art?

The Impact of Sustained, Standards Based Art Instruction For Incarcerated Youth

By Tereze Lear

This teacher action research project served as the Culminating Experience for a Masters of Arts in Education: Curriculum and Instruction with an Elective Emphasis on Arts in Education. The author formulated the Question, Does standards based, sustained visual art instruction result in significant gains in reading achievement for incarcerated youth? The author was a classroom teacher of art and reading in a maximum-security housing unit in a youth detention facility. The main Questions that guided the literature review were as follows: What is the theory and practices of arts in education? Is there a connection between a young person's cognitive development and participation in the arts? What prior research has been conducted measuring reading achievement in incarcerated juvenile offenders who received standards based art instruction? In addition to the quantitative data, qualitative data included the author's narrative observations and, student case studies that included work samples.

With the permission of her administrators, reading pre and post-test scores, over an eighteen-month period, were generated from the county office of education testing database. The numerical value of the pre and post-test scores are equivalent to grade levels, for example, a score of 4.5 should be interpreted as a student who reads at the 4th grade, 5th month level. The lowest score attainable is a pre-kindergarten level; the highest attainable score is 13.0, which is equal to first year college student. The student sample represented 105 students from the three male maximum -security housing units. All three housing unit classrooms utilized the same reading intervention supplemental curriculum. Two of these housing units offered sustained standards based visual art, one did not, serving as the control group. The incarcerated students in this study who were given the opportunity to participate in a sustained, standards based visual art course of study showed more than twice the growth in reading comprehension scores

when contrasted with the control group, the incarcerated students who were not provided with a sustained, standards based visual art course of study.

Summary of Average Reading Comprehension Growth

Unit A (control group): .99

Unit B: 2.06

Unit C: 1.67

Units B & C combined average: 1.88

An analysis of the pre and post-test reading comprehension scores revealed that all three housing units showed growth. The control group, Unit A, the unit that did not offer art instruction, had a reading comprehension growth average of approximately ten months. Units B and C, the units that offered art instruction, had a combined reading comprehension growth average of approximately one year and nine months. The groups who received sustained, standards based art instruction showed on average eleven months more growth in reading comprehension. In light of the question: Does sustained, standards based art instructions have a positive impact on reading comprehension achievement in incarcerated students? The data seems to support the conclusion that it does.

It is the author's opinion that while bolstering their production skills in visual art, a physiological transformation in the student's brains occurred. Specifically, the author believes that participation in the visual art classes activated the student's visual-spatial sketchpad thereby strengthening their working memory. There are two components to the working memory model: the phonological loop and the visual-spatial sketchpad. The phonological loop can be described as a left- brain activity in which decoding resides. The visual-spatial sketchpad can be described as a right-brain activity that is responsible for the generation of mental images. (Cain, K. & Oakhill, J. 2007)

While researching this teacher action research project, the author found an important connection in the two separate fields of cognition in reading comprehension and cognition in art. For decades,

researchers in the field of reading comprehension have searched for possible solutions for what has been termed “ the Fourth Grade Slump. ” The “slump” was the name that the great reading researcher Jeanne Chall used to describe the apparently sudden drop-off between third and fourth grade in the reading scores of low-income students (Hirsch, 2003). Meanwhile in the field of research in cognition and art, out of the work of Howard Gardner and Jessica Davis (1997) the term “The U Shaped Trough” was created to describe the descent of artistic development that occurs at approximately the age of eight years old. The average third grade student in public school in the United States is eight years old. The average reading level nationally for ninth grade youth in correctional facilities is fourth grade. When these two concurrent ideas were integrated, a new hypothesis was formed. Students who participate in an academic intervention in the visual arts strengthen their working memory, thereby improving their reading comprehension skills.

The implications, in regards to American public school curriculum, could be outstanding. For years reading experts have understood the role that working memory has played in decoding skills and that without good decoding skills, a student's reading fluency will be low. This deficit in reading fluency will hinder a student's breadth of vocabulary and domain knowledge. While no one would argue that good decoding skills are not necessary for the young reader, the focus on decoding in the first three years of reading acquisition is only accounting for half of the role of working memory.

Over the last decade, reading comprehension experts have started to move away from the position that decoding is paramount in reading acquisition. Some of these experts have contributed poor oral comprehension skills, word knowledge, and background knowledge as factors leading to the “fourth grade slump” in disadvantaged students (Hirsh, 2003). All three of these skills require students to create mental images in their brains, or in other words activate the visual-spatial sketchpad. An incident from my classroom can help illustrate this point. One day a colleague gave me a bag of tomatoes from her garden and they were sitting on my desk. A high school aged young man asked me what they were. I took one out of the bag and let him hold and smell the tomato, he still did not know the word for the object. When I told him what it was, he argued with me and said, “That's not a tomato.” I asked him to describe a tomato, and after he started he suddenly stopped and said, “Oh! I've only seen a tomato cut up and in my Taco Bell burritos, I thought that is the way they came.” The student could not identify the object because

he had never seen the object. Or more specifically, his perception of the object was based on his experience. He had no mental image inventory in his brain for “whole tomato.”

The author’s point is that sophisticated reading comprehension skills such as syntactic awareness, inference making, use of context, comprehension monitoring, knowledge of story structure, and working memory all require a student to visualize objects or scenes in their minds. The beauty of the visual arts is that it encompasses and encapsulates thousands of years of mental pictures from a myriad of cultural and visual perspectives. Each art student’s attempt at portraying what they see adds to not only the collective collection, but also to their own inventory of mental images. Producing art helps the artist make sense of his world and in doing so creates neurological connections in the brain.

Educational theorists such as, John Dewey and Rudolf Steiner who argued for experienced based, art-embedded early childhood education were, in part, proposing this approach because they understood that a child’s brain needed these right brain activities in order to be adequately prepared to learn. For example, Steiner’s pedagogy recommends that the kindergarten and first grade curriculums be narrative rich environments where the children learn to listen, visualize, and act out stories told by the teacher. In addition, decoding, introduced in the first grade, is integrated with art by the means of a unit on form drawing. The children learn their letters and the phonetic sounds those letters make by “drawing” the letters as opposed to “writing” the letters. It is the author’s opinion that an under- developed visual-spatial sketchpad has hindered lower performing students’ reading comprehension achievement. Sustained, standards based art instruction offers a pathway for consistent, sequential visual input that students desperately need in order to improve their working memory capacity and, therefore, better comprehend what they read.

Over the last century, leaders in educational pedagogy have supported the position that education should be experienced based, art embedded, and can provide a catalyst for social change. Experts in cognition have established that symbolic forms provide a foundation for perception and thought. Researchers of brain function have isolated that the right hemisphere of the brain is responsible for the creation of mental images and that mental images are a requirement for reading comprehension.

Educational theorists in, both fields reading and art, have determined that skill acquisition is a non linear progression and that in both fields there is a “slump” or “trough” that occurs at approximately eight years of age.

Studies with incarcerated Americans have established that the average reading comprehension level for juvenile and adult offenders is fourth grade. Research has proven that there is a strong link between recidivism rates for juvenile offenders and low academic achievement in reading. (Drakeford 2002, Szekely 1982, Vacca 2004) Not enough research has been conducted measuring the effectiveness of reading comprehension intervention strategies for incarcerated individuals. It has been reported that only 6% of public juvenile correctional institutions in the United States offered an academic curriculum in art.(Crane-Williams 2008) To the author’s knowledge, no prior studies have been conducted that measure the impact of visual art instruction on reading comprehension skills in incarcerated juvenile offenders. The data that was compiled and analyzed for this teacher action research project revealed that students who participated in the standards based, sustained art curriculum improved their reading comprehension skills at more than twice the rate contrasted with students who were not offered the art curriculum

Advocates for the arts in education have bemoaned the decline in funding for elementary art education in our nation’s public schools. Most school districts have cut allocations for art instruction. The call for “art for arts sake” is well reasoned and supported by the research. Unfortunately, this call, for the most part, has fallen on deaf ears. The bottom line is, for most districts, reading scores will take precedence over funding for visual art instruction. Visual art instruction and production teaches children how to observe and see the world around them. In addition, participation in the visual arts broadens a child’s point of view and experiences in the world, which expands word knowledge. These verbal and non-verbal academic activities strengthen the visual-spatial sketchbook component of working memory. The author proposes that researchers in both fields, cognition in reading and cognition in art, join forces to develop further studies investigating the connection between reading comprehension and art.

Appendix A: Selected Student Cases Studies

Student #18 duration of enrollment during the study was four months. His pre and post-test scores were 4.3 and 9.6. This student could be described as a thoughtful, cautious young man who was identified as a gang leader or “shot caller” in the housing unit. He came from a notorious family of gang members. The author had taught at least six brothers or cousins over the previous years. Figure 1a represents an early landscape in oil pastel. Figure 1b is a still life in ink completed late in his stay. Note the attempt at achieving a three dimensional form with the use of shading in his later piece.

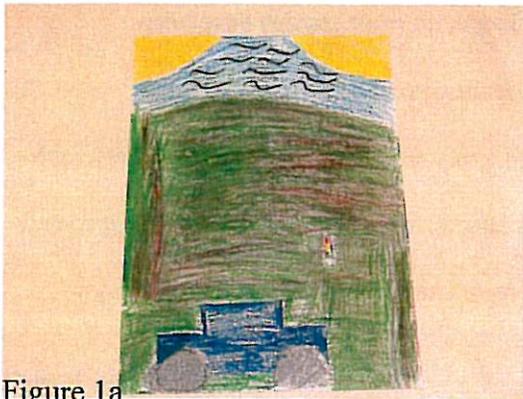


Figure 1a

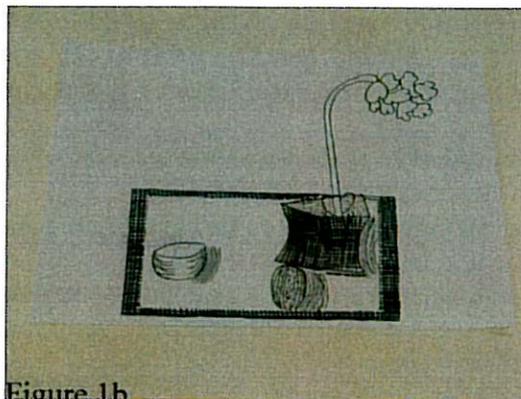


Figure 1b.

Student # 27 duration of enrollment during the study was six months. His reading pre and post-test scores were 5.4 and 8.1. He can best be described as wise beyond his years and jaded. The author had taught this student numerous times in minimum -security school and not once saw him smile, he rarely spoke unless spoken to. His eyes communicated a great deal of information and the author used him to take the pulse of the class. He often would signal the teacher with his eyes to warn her of behavior problems on the horizon with the class. Figure 2a, a watercolor and acrylic painting is an early example of his artwork. Figure 2b is his last painting, a watercolor.

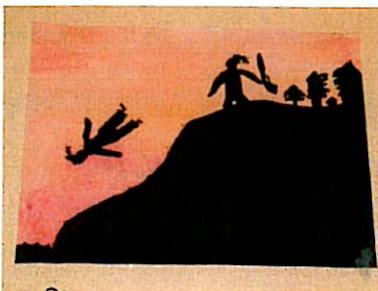


Figure 2a.

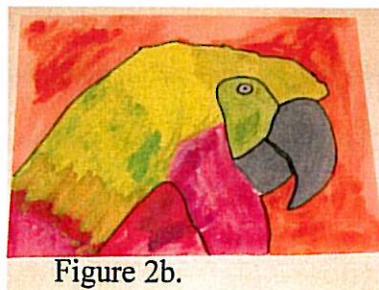


Figure 2b.

Student # 43 duration of enrollment during the study was one year. His reading pre and post-test scores were 6.1 and 13.0. The author had taught this student on and off for the previous six years, when she first met this student, at age thirteen, he read at the 2nd grade level. He had a mischievous personality. Figure 3a is an early example of his artwork, a mixed media collage. Figure 3b, an oil pastel still life was his final work. At the age of eighteen, this student was transferred to the county jail to be tried as an adult for the murder of a police officer. Six months later, he contacted the teacher via- letter, letting her know he was currently reading “War and Peace” while awaiting trial. He said it was the best book he had ever read. He thanked her for helping him become a better reader, regardless of the outcome of his trial.



Figure 3a.



Figure 3b.

Student # 38 duration of stay during the study was eight months; His reading pre and post-test scores were 4.9 and 6.9. This student had an amicable personality, although under the surface he struggled with anger issues. He openly expressed his enjoyment of art. Figure 9a is his first acrylic painting and Figure 9b is his final painting. As in the preceding case study, this student wrote to the author from the California Youth Authority, where he is serving an eight- year sentence. He informed her that he was staying clear of gang activity and working on obtaining his high school diploma.

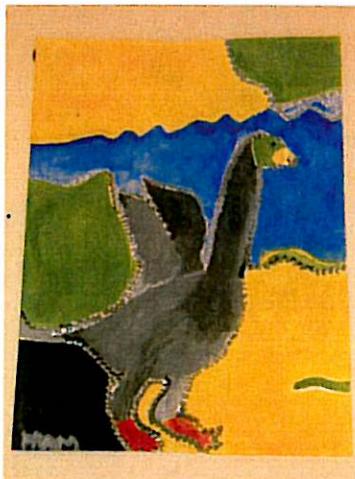


Figure 4a.

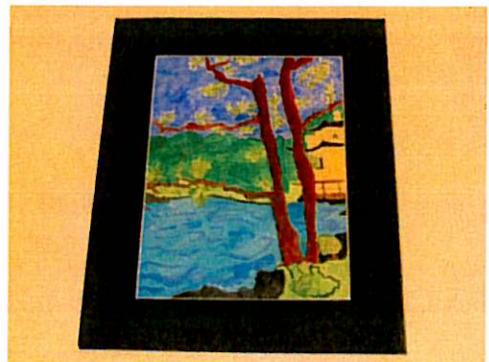


Figure 4b.

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