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# A Case Study of a High-Performing Suburban School District's Implementation of a Kindergarten Through Grade 12 Visual Arts Program

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# A CASE STUDY OF A HIGH-PERFORMING SUBURBAN SCHOOL DISTRICT'S IMPLEMENTATION OF A KINDERGARTEN THROUGH GRADE 12 VISUAL ARTS PROGRAM

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Title: A Case Study of a High-Performing Suburban School District's Implementation of a Kindergarten Through Grade 12 Visual Arts Program

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The purpose of this study was to investigate the perceptions, roles, practices, and characteristics of a high-performing suburban school district's implementation of a kindergarten through grade 12 visual arts program. Additionally, this study intended to understand how the school district implemented a kindergarten through grade 12 visual arts program in an era of summative assessments and accountability. The research questions aimed to identify the perceptions of the school district's educators relating to the value of the visual arts in increasing the quality of teaching and learning as well as student achievement in a standards-based environment. In addition, educators' roles and practices as well as characteristics involving the implementation of a kindergarten through grade 12 visual arts program were explored. The conceptual framework used for this study was Pink's (2005) development of right-brain thinking to thrive in the Conceptual Age.

The researcher conducted in-depth interviews with school district personnel to obtain the findings for this qualitative study. The participants ($N$ = 13) included the school district's superintendent, assistant superintendent, curriculum director, as well as building principals and a visual arts teacher from each of the school district's respective school buildings.

The findings of the research suggested the study of the visual arts is a cognitive process that fosters creativity and collaboration; thus, aids in the development of children as holistic learners. Participants viewed the establishing of positive rapport with students, exposure to relevant and multiple forms of media, integration of technology in conjunction with entrepreneurship opportunities to create functional art, and budgetary support and program development as well as the display of student art work as essential programmatic components. The results of this study provide insights to the roles, practices, and characteristics for school district's seeking to implement a comprehensive and vertically articulated visual arts program.

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# CHAPTER 1

## THE PROBLEM

Since the reauthorization of the Elementary and Secondary Education Act of 1965 (ESEA), mandated summative assessments and accountability for student achievement have been the emphasis in American education. The reauthorization known as No Child Left Behind Act of 2001 (NCLB) reinforced the states' and federal government's roles in establishing educational policy (U.S. Department of Education, n.d.). As a result, NCLB played a significant role in the organization and management of public school districts (Beveridge, 2010). Within NCLB, the federal government held states accountable for student achievement through a mechanism known as Adequate Yearly Progress (AYP) (Heilig, Cole, & Aguilar, 2010). This mechanism served as the basis for federal funding through the evaluation of several subcategories in the core subjects of reading and math. Critics contended the testing of reading and math marginalized non-tested subjects by the inadequate funding and decrease of instructional time (Beveridge, 2010). Research by von Zastrow and Janc (2004) concluded that, since the passing of NCLB, nearly 75% of surveyed principals indicated an increase in instructional time for reading and math, while 25% of the principals noted a decrease in instructional time for the arts. A study directed by the Center on Education Policy found that 62% of the school districts noted that instructional time increased in reading and math in elementary school and over 20% in middle school. Moreover, to accommodate for the increase, 44% of the districts reduced the time for instruction in social studies, art, music, and physical education classes (McMurrer, 2007).

As a core subject under NCLB, the arts were not a tested subject that counted towards achieving AYP. "By linking federal funding to schools' adequate yearly progress in reading and mathematics, NCLB created an environment in which such classes as physical education, music, and art became viewed as nonessential and secondary to the academic mission of the school" (Trost & van der Mars, 2009, p. 60). School officials have had to reassess the curricular offerings, professional development, and funding of the non-tested content areas (Beveridge, 2010). Administrators have exercised creativity in meeting the financial pressures by requiring art and music teachers to infuse reading and math into their course of study (Beveridge, 2010; Gerber & Gerrity, 2007). Also, the preference in hiring practices includes selecting teacher candidates with training in the integration of reading and math (Gerber & Gerrity, 2007). These trends resulted in the atrophy of curricular offerings in the social sciences and the arts as well as failed to recognize these subjects as individual disciplines with their skills and concepts (Beveridge, 2010; von Zastrow, 2004).

The scheduling of remedial courses indicates the reduction of arts education due to the concern of financial resources and time. To provide remediation for the sake of raising test scores, the scheduling of elective subjects supplants the scheduling of remedial reading and math courses to provide remediation for the sake of raising test scores. Although this strategy is cost effective and minimally disruptive, it has potential ramifications in the areas of continuity and best practices and ultimately undermines the value of arts education. Remediation pulls students from courses such as band and chorus, thus hindering the quality of the group's performance. Students who use the arts as an outlet for creativity or to hone their interests and talents may develop a negative

attitude toward school if the arts are not an option. Subsequently, using remedial courses as motivators to improve reading and math competencies so that a student can return to an elective course sends a negative message to all students that diminish the value of the arts (Beveridge, 2010). Moreover, prioritizing remedial courses over elective courses in art and music marginalizes the professional educator's skill set, knowledge, and professionalism. Additionally, prioritizing remedial courses over elective courses fosters a perception that art and music education are secondary components to a student's education (Beveridge, 2010).

NCLB intended to close the achievement gap; however, the question arises concerning its impact on preparing students for a post-secondary education that may include the social sciences, humanities, and the arts. More importantly, how does a system steeped in minimal competencies in reading and mathematics prepare students to compete globally in the 21st century (Ravitch & Cortese, 2009)? These questions may cause educators and policymakers to examine the current system for measuring student achievement. Standardized testing can be helpful in assessing student achievement; however, using standardized test scores to assess the overall quality of education can stifle innovation, creativity, and divergent thinking (Ravitch, 2011a). Furthermore, the federally mandated summative assessments of specific core subjects over other subjects perpetuate the idea that the focus of education is to pass standardized tests (Heilig et al., 2010).

As NCLB's 2014 deadline for schools to meet 100% proficiency passed, the focus of the federal government's attention turned to Race to the Top (RTT). Funded by the American Recovery and Reinvestment Act of 2009 (ARRA), RTT was a $4.35 billion

competitive, voluntary grant program to raise achievement in schools (U.S. Department of Education, 2009). Critics argued RTT continued to emphasize test-based accountability in the areas of reading and math as well as perpetuated the trend of less instructional time for the arts, social science, foreign language, and physical education (Ravitch, 2010; Onosko, 2011). Rothstein (as cited in Roach, 2014) asserted that "under NCLB only schools were held accountable for student test scores … under Race to the Top teachers were held accountable for student test scores, which increased the pressure to focus more exclusively on math and reading, and to ignore other aspects of the curriculum" (p. 36). Although NCLB and RTT had distinguishing characteristics, both forms of legislation focused on accountability for student achievement through mandated summative assessments.

## Statement of the Problem

Mandated summative assessments and accountability to increase achievement in reading and math have driven educational reform for almost two decades (Onosko, 2011). NCLB intended to reduce the achievement gap and provide more educational opportunities for low income and racial minority students (Spohn, 2008). The trend of standardized testing continued with the RTT initiative correlating school performance to testing outcomes (Hourigan, 2011). Previous studies (McMurrer, 2007; Spohn, 2008; von Zastrow & Janc, 2004), implied that as school districts worked to meet the demands of federal mandates, administrators reduced instructional time for social studies, art, music, and physical education. Furthermore, professional development focused on the enhancement of test scores, embedding reading and math into non-tested subjects, and

reducing the instructional time allotted outside the tested subjects to remediate threatened the vitality of these disciplines (Hourigan, 2011; Spohn 2008; West, 2012).

The emphasis of summative assessments in reading and math only raised concerns among scholars in and out of the discipline of education. The concerns are that standardized exams tend not to measure a student's creative abilities or the character traits that are significant to academic success such as perseverance, resilience, and determination. Also, the goal of the construction of the exams was to measure logical and linear capabilities. The exams did not address other forms of intelligence (Jorgenson, 2012). Pink (2008) asserted that the aptitudes measured by state reading and math tests as well as the SAT remain necessary; however, reading and math abilities alone do not determine aptitude. Economic forces that are changing the world of work requires students to possess a new set of capabilities. The capabilities of design, empathy, and big-picture thinking are naturally artistic and are essential to economic performance.

The design of educational programs influences what students learn and the types of cognitive skills they obtain. Each discipline operates within a specific schematic and theoretical framework and requires the understanding of different techniques, materials, and ideas (Eisner, 2002). Traditionally, art education served as a pathway to foster self-expression, imagination, and creativity (Gardner, 1990). Through this pathway, the formation of a genuine piece of artwork is as difficult a demand as manipulating verbal and mathematical symbols (Dewey, 1934). In their research of art classes in the Boston-area schools, Winner and Hetland (2008) found that art education nurtures certain capabilities that are instrumental in developing artistic creators and innovative leaders. Furthermore, they concluded the broader implication of art education extends beyond the

development of a craft skill to the skills of observation, visualization, innovation, self-reflection, and persistence. These capabilities enhance a student's capacity to recognize new patterns and relationships as well as envision solutions to complex problems. Eisner (2002) noted the irony of those who regard the arts as non-cognitive even though the artistic process requires refinement, imagination, judgment, and technical skill.

With educational policies still centered on logical, linear, and analytical abilities, public education is preparing students in the wrong direction of global economic trends. The need to rethink the preparation of students warrants consideration (Pink, 2008). The systemic curricular alignment of creative and entrepreneurial leadership should transcend the emphasis on standardized test scores. Educational policies that drive the significance of test scores do not measure the inventiveness and pioneering of today's economy (Jorgenson, 2012). Given this information, the problem that this study sought to address was how a school district implemented a kindergarten through grade 12 visual arts program successfully in an era of summative assessments and accountability.

## Purpose of the Study

The purpose of this qualitative study was to examine the perceptions, roles, practices, and characteristics of educators in a high-performing suburban school district as they implemented a kindergarten through grade 12 visual arts program. It also sought to explore how they implemented a quality visual arts program in a standards-based environment.

For this study, the term *visual arts* refers to spatial art that includes images, structures, and physical works. These art forms consist of drawing, painting, sculpturing,

crafting, printing, designing, and multi-media (Pennsylvania Department of Education, 2002). According to Dewey (1934),

> Art denotes a process of doing or making. This is as true of fine as technical art. Art involves molding of clay, chipping of marble, casting of bronze, laying on of pigments, construction of buildings, singing of songs, playing of instruments, enacting roles on the stage, going through rhythmic movements in the dance. Every art does something with some physical material, the body or something outside the body, with or without the use of intervening tools, and with a view to production of something visible, audible, or tangible. (p. 48)

An extended view, as described by Gardner (1999), noted the intelligences of *bodily-kinesthetic* and *spatial* in the visual arts. Bodily-kinesthetic intelligence involves the capability to utilize either portions or the entire body to create a solution to a problem. This form of intelligence is synonymous with dancers, actors, and athletes; however, this form of intelligence can also pertain to craftsman. Lastly, spatial intelligence requires the ability to identify and maneuver patterns within either open or confined spaces and is featured in the works of sculptors, graphic artists, and architects.

Additionally, the Pennsylvania Department of Education (PDE) defines *high-performing* according to the state measure of accountability for public schools. PDE considers a school with an average School Performance Profile (SPP) score of 90 or higher out of 100 as attaining high-performing status. Indicators relating to academic achievement, closure of the achievement gap, academic growth and other indicators such as graduation, promotion, and attendance rates determine a school's SPP (Pennsylvania

Department of Education, n.d.). Academic achievement and growth relating to the visual arts or the arts, in general, do not factor into the SPP score.

## Need for the Study

Historically, public education has emphasized linguistic and logical-mathematical intelligence. NCLB and RTT perpetuated the emphasis by measuring student achievement in reading and math only (U.S. Department of Education, 2009). Currently, the PDE incorporates summative assessment test scores for Math/Algebra 1, Reading/Literature and Science/Biology into a formula to determine academic performance for schools (Pennsylvania Department of Education, 2015). The summative assessments do not incorporate the arts into the formula to determine academic performance for schools.

In summary, the construction of the current education system met the needs of the Industrial Age. The Industrial Age model of learning remains deeply embedded in American education. The assembly line model of learning tends to measure learning in certain disciplines. It emphasizes and focuses on the coverage of content rather than the development of broader skills and how to apply them in different contexts (Friedman, 2007, Pink, 2005; TED Talk, 2010; Wagner, 2012). Moreover, the Industrial Age model of learning does not consider that students learn through a variety of modalities and various time frames; therefore, by the nature of its design, does not include all students in the educational process (Perrin, 2008). The summative assessments used in the standards-based era measure achievement in reading and math and do not assess skills that are artistic. Budgetary constraints coupled with the age of accountability and the

difficulty in measuring higher-order skills make it difficult for educational leaders to provide a comprehensive educational program.

The advancement of technology and globalization has enabled jobs to be digitized, outsourced and automated. This phenomenon has required educators to revisit the purpose of education and to anticipate the needs of students. Twenty-first-century skills that involve students using abstract thoughts and concepts to problem solve will enable students to add value; thus, making them more competitive in a global economy. The implementation of the visual arts in an educational framework provides students the forum to hone these skills. In his article, "Enhancing Student Learning through Arts Integration," Gullatt (2008) sought to provide policymakers and curriculum leaders discussion points to form rationales for integrating a functional arts program to increase the quality of teaching and learning as well as student success. It is the intention of this study that the results of this study will provide educators with an example of a school district's implementation of a visual arts program from a kindergarten through grade 12 perspective while achieving high-performing status. This study may provide ideas for fully engaging students through problem-solving, collaboration, and real-world applications. Also, the findings may provide educators with strategies for allocating human and financial resources for the fine arts as well as the performing arts in a harsh fiscal climate.

## Conceptual Framework

The economic theories of Pink (2005) provided the framework of this qualitative study. Pink provided a view of the global economic changes and the need to align education to address the demands of the world's economy. Within his view, Pink

outlined his argument for public education's role in workforce preparation and the role of the arts in educating students to succeed in the current and future economy. He maintained that the fundamental skills and abilities students will deploy in the work environment are artistic in nature. These artistic abilities center on aesthetic, creative and expressive capacities (Pink, 2008).

Pink (2008) asserted that logical, linear, and analytical abilities have been emphasized through all levels of education and were once considered the key to obtaining economic security. He argued that these abilities still matter; however, they are not as important as the abilities of artistry, empathy, big-picture thinking and inventiveness. He emphasized that logical, linear, and sequential abilities are still relevant; however, by themselves they are no longer effective in overcoming current economic forces.

In his book, *A Whole New Mind: Why Right-Brainers Will Rule the Future*, Pink (2005) discussed the functions of the opposing hemispheres of the brain to build his argument. He initially presented his notion of *L-Directed Thinking* as a form of thinking that is representative of the analytic, literal, and textual qualities linked to the left hemisphere of the brain. Conversely, *R-Directed Thinking* is associated with the brain's right hemisphere qualities that are characteristic of metaphorical, aesthetic, and contextual abilities. He used these forms of thinking and attitudes toward life to explain how the economy has evolved from L-Directed (left-brain) Thinking to R-Directed (right-brain) Thinking. He attributed this evolution to the economic forces of abundance, Asia and automation. These forces have driven the economy to transition from the Information Age, which is highly representative of L-Directed Thinking, to the Conceptual Age, which is representative of R-Directed Thinking. Survival in the

Conceptual Age requires a new set of skills to overcome the three forces of abundance, Asia, and automation. The six essential R-Directed aptitudes outline the new set of skills that require high-concept and high-touch senses. Pink identified these six aptitudes as design, story, symphony, empathy, play, and meaning. He theorized these six high-concept and high-touch senses create the whole new mind needed to compete in the Conceptual Age.

Pink (2005) described the evolution of high-concept and high-touch as having occurred during three stages: Industrial Age, Information Age, and Conceptual Age. The assembly line and the factory worker powered the Industrial Age economy. During the Information Age, the knowledge workers utilized their L-Directed capabilities to stimulate the economy. From a purely economic viewpoint, the forces of abundance, Asia, and automation have necessitated the need for R-Directed Thinking. With the increase of middle-class wealth and the increased availability of goods, the economic force of abundance has made manufacturers develop goods that are not only practical but also have aesthetic value. Also, as outsourcing to Asia or automating decreases the cost of the product, today's worker and organization should ask the following questions:

1. Can someone overseas do it cheaper?
2. Can a computer do it faster?
3. Is what I am offering in demand in an age of abundance (Pink, 2005, p. 51)?

An answer of 'yes' to the first two questions and 'no' to the third puts the worker or organization in peril. Pink (2008) argued that to overcome the economic forces of abundance, Asia, and automation, employers are seeking people who can think creatively

and horizontally as well as combine aspects from different disciplines to create something new.

Pink (2008) argued educational reform and the steeped tradition of linear, logical, and analytical skills have made it difficult for R-Directed capabilities to penetrate the American public-school paradigm. Furthermore, changes in the economy should dictate how we educate students. The L-Directed Thinking abilities still matter; however, the six senses of design, story, symphony, empathy, play, and meaning are hard to outsource and automate as well as deliver significance along with utility.

Pink's (2005) notion of the significance of L-Directed Thinking abilities coupled with the six R-Directed Thinking aptitudes relates to the purpose of this study. Due to the R-Directed Thinking aptitudes being artistic in nature, the visual arts provide the opportunity to develop and inspire creative, imaginative, problem-solving, and collaborative skills. The integration and application of the visual arts contribute to the intellectual growth and artistic intelligence by exposing the student to the elements of design as well as expressive and empathic pathways. These pathways provide a deeper understanding of the visual arts by studying problems that generate ideas, possibilities, and solutions to real-world problems. Table 1 illustrates Pink's six senses that are needed to develop a whole new mind in the Conceptual Age.

Table 1

*The Six Senses of the Conceptual Age*

| Sense | Description |
|---|---|
| Design | The ability to combine utility with significance |
| Story | The ability to put facts in context and deliver them with an emotional impact |
| Symphony | The ability to recognize patterns and uncover connections between unrelated fields to create something new |
| Empathy | The ability to see the world through another person's perspective |
| Play | The ability to explore through laughter, humor, and games |
| Meaning | The ability to find purpose and transcendence in one's life |

*Note*. Adapted from *A Whole New Mind: Why Right-Brainers Will Rule the Future*, by D. Pink, 2005. Copyright 2005 by Riverhead Books.

## Significance of the Study

The needs and current condition of the global economy requires an education that builds capabilities that cannot be outsourced or automated. Students who can identify problems, combine disparate things to create something new, use a narrative to express a vision effectively, and can think empathically have the best chance for economic success (Pink, 2008). Building an academic program that addresses these areas requires leadership at the superintendent, principal, and teacher levels. Over time, the role of the superintendent has evolved from managing of the budget, finances, and legal matters to an increased focus on instruction and student performance. The challenge of closing the achievement gap while still demonstrating academic growth for higher achieving students is at the forefront of public education. The high-stakes testing environment in

conjunction with the economic conditions of escalated costs and anti-tax sentiment poses a formidable task for superintendents (Cunningham & Cordeiro, 2006).

To adequately address instruction and student performance improvement, effective superintendents focus on developing the capacity of principals and teachers (Kowalski, 2006). Shen and Crawford contended that,

> Principals are paying more attention to instructional leadership. This includes development and evaluation of curriculum and instruction, use of instructional time, disaggregation of data, analyzing classroom practices, faculty and staff development, and curriculum alignment with standards. (as cited in Cunningham & Cordeiro, 2006, p. 136)

Luehrman (2002) found that the role of principals in allocating financial and human resources, overseeing of the master schedule, and influencing the hiring of teachers played an integral role in the offering of a quality arts program. Lastly, with the marginalization of the arts, the need to advocate for arts-based inquiry emerged. As a result, art educators became instrumental in providing leadership in the areas of curriculum and professional development as well as fostering school and community partnerships to offer of a quality arts program (Smilan & Miraglia, 2009).

The results of this study may serve as a strategic, tactical, and operational blueprint for school districts that aspire to implement a quality visual arts program while achieving academic success as measured by state performance criteria. Moreover, universities with art education, curriculum and instruction, and educational leadership studies programs could garner information to instruct educators at all levels of the curricular, administrative, and fiscal best practices needed for successful implementation

and high achievement. On a broader scope, the findings could serve as a conduit between American public education and industry. Ideally, curricular offerings will nurture a skill set that is in alignment with the demands of the economy. Lastly, this study can add to previous research that examines educational reform and the role of the visual arts in preparing students for economic success.

## Research Questions

1. How do the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district perceive the value of the visual arts in increasing the quality of teaching and learning, as well as student achievement in a standards-based environment?
2. What are the roles of the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district in the implementation of a kindergarten through grade 12 visual arts program?
3. What are the practices and characteristics of a high-performing school district that implements a kindergarten through grade 12 visual arts program in a standards-based environment?

## Study Design

This study utilized a qualitative methodology to investigate the perceptions, roles, practices, and characteristics of the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers in implementing a kindergarten through grade 12 visual arts program while achieving high academic performance. The researcher conducted this study over the course of the 2017-2018 school year. The case

study design afforded the researcher the opportunity to acquire an in-depth understanding of the practices of a high-performing school district through the collection of various information sources (Creswell, 2013). The researcher collected data through semi-structured interviews. A researcher-developed interview protocol (Appendix A) addressed the research questions, provided a way to record notes, and enabled the interviewees to respond candidly.

The researcher conducted in-depth interviews with the superintendent, assistant superintendent, curriculum director, building principals, and visual arts teachers. Interviews also consisted of one visual arts teacher from each building (three elementary, middle school, and high school). Before each in-depth interview, the researcher asked the interviewee a series of questions relating to their current role, years of service within the district, and professional background (Appendix B). The researcher validated the findings through triangulation. Creswell (2012) purported that researchers of qualitative studies should triangulate their data by collecting evidence from multiple sources such as documents, observations, and interviews of individuals. A review of the school district's strategic plan identified evidence relating to the strategy for ongoing growth, development, and sustainability of the district's visual arts program. An examination of the district's strategic plan, program of studies from each building level revealed the curricular offerings, scope and sequence of courses, prerequisite skills and knowledge, and required courses in the visual arts. Also, an examination of board policies, professional development plans, and assessment documents, interview protocols, and miscellaneous district documents validated practices and characteristics of the studied school district.

## Participants

Selection of the participants for this study were from a high-performing suburban school district in Pennsylvania that employs a quality visual arts program. As determined by the state measure of accountability for public schools in the Commonwealth of Pennsylvania, the academic achievement of a school appears as a building level score. Referred to as the SPP, the score is based on a 100-point scale and includes multiple performance indicators. These indicators display data in the areas of academic achievement, closure of the achievement gap, and academic growth for the Pennsylvania System of School Assessment (PSSA) or Keystone tested areas of Math/Algebra 1, Reading/Literature, and Science/Biology. Academic indicators relating to industry standards-based competency assessments, grade three reading proficiency, and SAT/ACT college ready benchmarks are also represented in a school's SPP. Additionally, other academic indicators include the cohort graduation rate, promotion rate, and attendance rate. Lastly, schools can earn extra credit points for advanced achievement scores in the three tested areas, industry standards-based competency assessments, and Advanced Placement (AP) exams (Pennsylvania Department of Education, n.d.).

For this study, high-performing status was defined by one or more of the schools within the district attaining an average SPP of 90 or higher from the 2013-2014 to 2016-2017 school years. Identification of the research subjects for this study was a result of their high school's national recognition as a high-performing school for the 2016 school year. The school's recognition was a result of their high-performance on state assessments or nationally normed tests. Additionally, the high school's Pennsylvania School Performance Profile (SPP) scores averaged in the top ten percent for the 2013-

2014 through 2016-2017 school years. Also, the Middle States Association of Colleges and Secondary Schools and the Pennsylvania Department of Education have accredited the district's high school. Furthermore, statewide and regionally, the ranking of the district was in the top ten school districts in Pennsylvania according to local media publications. The average of three years of state standardized test scores determined these rankings.

Implementation of a quality kindergarten through grade 12 visual arts program began with a commitment by the district participating in this study. Beginning in the 2017-2018 school year, the district established a partnership with the Arts Education Collaborative (AEC). Overseen and funded by the Carnegie Museums of Pittsburgh, the AEC works to support quality art education. The AEC collaborates with schools and art educators to incorporate the arts into their curriculum by providing programs and resources to meaningfully engage students (Arts Education Collaborative, n.d.). Also, the district's art curriculum develops artistic skills and concepts beginning at the elementary level with courses in the visual arts offered at both the middle school and high school levels.

## Limitations of the Study

A limitation of the study was that it examined only one suburban school district in Pennsylvania. Thus, a generalization of the perceptions and practices to high-performing school districts with a quality visual arts program outside of the sampled participants may not be possible. Furthermore, additional time for the researcher to probe the participants' responses arose as a limitation of this study. With additional time, the researcher has the opportunity to probe the interviewees regarding the clarification and elaboration of their

responses (Creswell, 2012). The qualitative approach relies on everyone's understanding of a quality visual arts curriculum, ability to articulate his/her perceptions, and willingness to disclose his/her thoughts. Additionally, participants might construct their responses according to their philosophies and experiences relating to the visual arts and state summative assessments (Creswell, 2012). However, the study intended to investigate the role of the visual arts in educating the child and how to implement a robust visual arts program in a standards-based environment. Findings from this study would be helpful to school districts balancing the demands of high stakes testing while integrating a visual arts curriculum. On a broader scope, findings from this study add to the literature that influences educators and politicians at the state and federal levels to further consider the role of public education and how to best measure student achievement.

## Definitions and Terms

Visual Arts - A form of spatial art that includes images, structures, and physical works. These art forms consist of drawing, painting, sculpturing, crafting, printing, designing, and multi-media (Pennsylvania Department of Education, 2002).

High-Performing - Defined by the state measure of accountability for public schools in the Commonwealth of Pennsylvania, a high-performing high school attains a School Performance (SPP) score of 90 or higher (Pennsylvania Department of Education, 2015).

School Performance Profile (SPP) - A school-level academic score for public schools in Pennsylvania; utilizing the academic measures for an individual school may provide information to improve best practices for enhancing student achievement

and measure educator effectiveness. Based on a scale of 100, the SPP score includes the following indicators that define high achievement:

1. Academic achievement (40%)
2. Closing the Achievement Gap – All Students (5%)
3. Closing the Achievement Gap – Historically Underperforming Students (5%)
4. Academic Growth / PVASS (40%)
5. Other Indicators (10%)
6. Extra Credit for Advanced Achievement (up to 7 points) (Pennsylvania Department of Education, 2015).

## Summary

Historically, educational reform emphasized summative assessments in reading and math. Studies indicated that since the implementation of NCLB, instructional time in reading and math has increased while there has been a reduction in the curricular areas of social studies, art, music and physical education (McMurrer, 2007; von Zastrow & Janc, 2004). Critics contended that the narrowing of the curriculum to meet educational mandates impedes the development of capabilities to compete in the current economy. The economic forces of outsourcing and automation have eliminated jobs for American workers requiring educators to reconsider the preparedness of students for the workforce. Skills that are artistic and creative in nature negate these economic forces and assist in developing a citizenry that can solve problems, collaborate and create things of significance (Pink, 2005).

Schools work under the pressure of standardized testing mandates while providing learning opportunities that will best prepare students as learners and for the workforce. A

framework of limited financial resources amplifies this challenge. The investigation of a high-performing school district that articulates and implements a quality kindergarten through grade 12 visual arts program adds insight relative to academic performance and educational practices.

Chapter 1 investigated the purpose and need for the study as well as the study's conceptual framework, research design, and limitations. Chapter 2, through the review of the literature, explores the purpose and foundations of art education. It examines visual arts curricular frameworks and recommends pedagogical practices to guide art education. It studies the learning pathway of STEM education and the integration of art to create the STEAM educational framework. Also, it investigates the relationship between art and science, and the impact of art on human neurobiological systems and cognition. Furthermore, the review of imagination and creativity endorses the role of the arts in the development of cognitive abilities. Also, included is an examination of the history of educational reform, educational policies relevant to the 21st century, the global achievement gap, and the impact of the economy on education. Lastly, also included is a review of Pink's (2005) six aptitudes required for the Conceptual Age.

# CHAPTER 2

## REVIEW OF RELATED LITERATURE

Through the lens of leadership, it is evident that the current reality in education is quite different from that of the previous century. Educational leaders are mandated by federal reforms that increase the government's role and measure the quality of education through standardized assessments. Critics contend that the summative assessments originally instituted by NCLB legislation do not assess the skills and aptitudes required for the current marketplace, ignore other types of intelligences, enhance the bureaucratic administration of public education, and reinforce an educational model constructed for a past era (Editorial Projects in Education Research, 2011; Meier & Wood, 2004; Ravitch, 2013; Robinson, 2009; Wagner, 2008; Wagner, 2012; Zhao, 2009).

The advancement of technology and globalization has enabled jobs to be digitized, outsourced and automated (Friedman, 2007; Pink, 2005). This occurrence has required educators to revisit the educational purpose and needs of all students. Twenty-first century skills which require students to use abstract thoughts and concepts to solve problems will enable students to create new products or irreplaceable services. By adding value through the contribution, creation or provision of goods and services, students will be more competitive in a global economy (Friedman, 2007). Pink contends the abilities and skills that students will be deploying in the workforce are fundamentally artistic abilities (Artsedge: The Kennedy Center Arts Education Network, 2008).

The utilization of artistic and creative abilities requires the development of sophisticated cognitive functions (Eisner, 2002). These abilities extend beyond the discipline of art and are not limited to other domains (Dewey, 1934; Eisner, 2002;

Gardner, 1982; Robinson, 2009; Zaidel, 2014). The complex cognitive, collaborative, and technical abilities required of today's worker poses a quandary for policymakers and educators (Tapscott, 1998; Tapscott & Williams, 2006; Wagner, 2008; Zhao, 2009). The need to prepare and assess high school students in competencies related to reading, writing and math remains relevant; however, music, art, industrial technology, and physical education are essential to encouraging collaboration and stimulating creativity in public schools (Friedman & Mandelbaum, 2011).

The study sought to discover the perceptions of central office leadership, principals, and teachers of a high-performing suburban school district relating to the value of the visual arts in increasing the quality of teaching and learning as well as student achievement. In addition, it investigated the roles of central office leadership, principals, and teachers in the implementation of a kindergarten through grade 12 visual arts program. Lastly, this study examined the practices and components of a comprehensive visual arts program in a standards-based environment.

The chapter will discuss curricular and pedagogical practices relating to the visual arts as well as the relationship between school cultural and art education. It will also identify the relationship between art and science through chronicling the historical connections between art and science from the Middle Ages through modern times and explore the characteristics of STEAM education. It will examine the differences and similarities between artistic and scientific investigation. This chapter reviews the mechanisms and benefits of art relating to cognitive functions. These benefits include the enhancement of perceptual-motor systems, memory, kinesthetic abilities, aesthetic development and understanding, and overall cognitive, creative, and developmental

aptitudes (*Learning and the Arts: Crossing Boundaries*, 2000; Eisner, 2002; Jensen, 2001). In addition, human cognition relating to the arts and creativity as well as cognitive characteristics of the visual arts is explored.

To provide a historical context related to the study, the researcher reviewed the events of educational reform from the Progressive Era through the standards-based movement. In addition, the implications of educational reform on the current system and a comprehensive system for evaluating academic achievement are identified. Moreover, the economic arguments which advocate for a curriculum that cultivates creativity is followed by the defining of 21st century skills and curricular design. Lastly, the study's conceptual framework is presented.

## Overview of Art Education

In his book, *The Arts and the Creation of Mind***,** Eisner (2002) asserted the primary purpose of art education is to advance cognitive development of a child by either creating or perceiving an expressed work of art. During this process, aesthetic awareness is refined, variations become subtler, the imagination is stimulated, and aptitudes are honed to stir an aesthetic feeling within an art form. Furthermore, the educational process provides a child with opportunities to become the architect of their own learning. The arts distinctly contribute to this process by emphasizing individual expression and requiring the utilization and growth of imaginative capabilities. Similarly, in her book, *Thinking through Aesthetics***,** Stewart (1997) contended a goal of education is to widen the breadth of a student's experiences so that their understandings of the world are expanded. Relative to the teaching of art, intellectual growth can occur so long as a child can reflect and inquire about art and related concepts. Intellectual growth is achieved by

exposing children to artwork or ideas that are not congruent to their own artistic beliefs. For children to critically reflect upon the worthiness of their own beliefs, they must develop an understanding of opposing views. Moreover, another important purpose of education is to nurture a child's critical thinking skills. Art provides a child the opportunity to scrutinize the qualities of opposing beliefs. Thus, the teaching of art can develop critical thinking skills by requiring children to reflect deeply about their own artistic values and insights, as well as the cultural impact of art.

According to Emamoke (2013), art education arose as a response to the onset of industrialization and was influenced by the progressive movement. As a result, art education employs similar methods that are utilized in the psychological and social sciences. Most specifically, art education investigates the effective practices of teaching art and the areas of inquiry and skills required to study the discipline. Those areas consist of the acquisition of artistic knowledge and expression; an understanding of design and critique; and a familiarity with its history. The study of the arts also examines the processes of artistic development and creativity, the relationship between drawing and socialization, and the influence of aesthetic preferences on learning. Efland (as cited in Emamoke, 2013) contended the following areas are the basis of art education:

1. The importance of aesthetic influence and artistic concepts on the human experience;
2. content areas of art history, studio and critique;
3. the alignment of curricular goals, content, and methods;
4. the study of social changes and cultural policy as it relates to the evolution of art education;

5. individual and group behaviors related to art education and aesthetic response that are explained and clarified through empirical research.

## Visual Arts Curriculum

Emamoke (2013) concluded the design of art education curriculum parallels with the universal fundamentals of curriculum planning and instruction**.** Moreover, steeped in the tenants of curricular design is the globally accepted art education curriculum framework of Disciplined- Arts Based Education (DBAE). DBAE arose in the early 1980s because of a theoretical shift of art educators aligning to a holistic approach to education. Funded by the J. Paul Getty trust, the Getty Center for Education in the Arts (GCEA) sought to bolster instruction in the arts throughout the United States (Delacruz & Dunn, 1996). GCEA developed a comprehensive approach to visual arts education by emphasizing the artistic foundational disciplines of production, criticism, history, and aesthetics. These underlining areas seek to advance the creation, knowledge, and value of art by developing the mastery of skills and knowledge that are required for students to produce and study a wide-range of art forms ("What Is Discipline-Based Art Education?", n.d.).

In *The DBAE Handbook: An Overview of Discipline-Based Art Education*, Dobbs (1992) defined (a) the production of art as the creation of art; (b) art criticism as the evaluation of the properties and qualities within visual art works; (c) art history as the study of artistic contributions to culture and society; (d) aesthetics as how judgments are made about visual art forms. These foundations require an understanding of the concepts and contexts of art and the skills to evaluate as well as to produce art. Within the DBAE framework, the curriculum is developed sequentially, articulated vertically, and reflects

the presence of the four art disciplines throughout all grade levels. In addition, culturally diverse works of art by renowned artists are essential to curriculum development and the integration of content from the disciplines. Moreover, the implementation of DBAE is characterized by district-wide consistent and quality art instruction, administrative support, and sufficient allocation of resources. The DBAE implementation occurs through the ongoing community support and utilization of local art museums and centers, and resident artists. Art education expertise and understanding of DBAE approach requires staff development coupled with the commitment of designating instructional time and materials to the teaching of art. Lastly, student achievement and teacher and program effectiveness are evaluated by defined criteria and procedures (Clark, 1987).

Dobbs (1992) asserted DBAE enables students to become progressively advanced in their abilities to critique multiple forms of visual art, to recognize the cultural and historical significance of art, and to value different aspects of art forms. Content for the four disciplines can be chosen from a myriad of visual forms and images in the areas of "fine," applied, craft and textile arts, fashion design, and photography. The curricula developed from these realms may vary regarding selection of example artworks, types of activities, and areas of emphasis; however, all possess these common characteristics:

1. Lessons are planned, written, and coordinated to guarantee horizontal and vertical continuity;
2. lessons are developed sequentially to build upon concepts that allow students to logically develop their knowledge, skills and understandings;
3. quality multicultural examples of art are essential to developing curricula and integrating content among disciplines;

4. the students are exposed to balanced content from the four art disciplines;
5. learning activities are developmentally appropriate

In relation to the support of these common curricular characteristics, Stewart (1997) maintained,

> A K-12 art program that provides all students with opportunities to reflect on philosophical issues and helps them practice and refine their thinking skills assumes that students in the upper grades will have more comprehensive sets of beliefs and will be better able to articulate their reasons for holding them. The key is to sequence learning programs in aesthetics by providing topics for consideration that are increasingly complex, drawing on an increasing understanding of art; and by providing opportunities to practice and refine skills that are increasingly demanding. (p. 100)

In Mitchell's (2014) study relating to the visual arts and secondary art teaching practices, a noted theme was the integration of art-making and art studying. The integration reflected an emphasis in the content areas of (a) art-making, (b) art history, and (c) art criticism. Throughout the grade levels, teachers recognized the importance of tailoring the content to ensure that it was developmentally appropriate. Beginning in the junior year, single lessons were integrated by identifying links between art-making and art studying. During the senior year, discrete lessons were used to specifically focus on either art making or art studying. The impetus for this curricular adjustment was the recognition to teach for greater depth and to maintain student sustained engagement.

Delacruz and Dunn (1996) noted that the DBAE method can be enriched and modified by integrating the visual arts with music, dance, and theater. Through an

interdisciplinary approach, complementary units are developed around selected works of art that address fundamental topics in the areas of (a) design, (b) social and environmental issues, (c) historical periods, (d) artists, and (e) culture. The collaboration by art, music, drama, and dance teachers in the use of the DBAE framework to intentionally interface the visual and performing arts provides a myriad of opportunities to collectively enhance the status of each artistic area. The DBAE framework can also be modified with the implementation of a comprehensive holistic assessment task (CHAT).

A CHAT is a multidisciplinary thematic unit that is designed around an essential work of art. Assessment tasks within the CHAT can include the (a) creation of art, (b) process folios; (c) critical, reflective, interpretive, and descriptive writings; and (d) discussions. The theme of the unit is linked to a sequence of multi-disciplinary lessons that include content both within and outside the visual arts. The overarching goals of a CHAT unit extend beyond the foundational disciplines of the DBAE framework by developing an understanding and appreciation of the human experience from a personal, local, and global viewpoint. In addition, critical thinking and writing skills as well as the abilities to work cooperatively or independently are the desired outcomes of a CHAT unit (Delacruz & Dunn, 1996).

Also concerning visual arts curriculum, Gude (2013) argued in her article "New School Art Styles: The Project of Art Education," the necessity to revisit the importance and purpose of art projects within the curriculum. Art projects remain viable building blocks to the visual arts curriculum; however, to implement new styles of art education, projects must be developed to stimulate multifaceted aesthetic strategies that provide students the capability to make meaning. These strategies enable students to avoid the

pitfalls of overused and common visual making techniques influenced by pop culture. For new style projects to occur, projects with predetermined results must be removed from the curriculum and replaced with open-ended projects that are designed to create unpredicted possibilities. Open-ended projects still require the teacher to reinforce the design elements of color and contrast; however, students have the freedom to apply utilize a technique or skill to understand the main element of artistic expression. Quality art projects employ aesthetic practices that support the process of examining and developing meaning that is contemporary and relevant to the student. Furthermore, through individual and collaborative support, art projects should provide new understandings that enable students to transform their learning and process life experiences. For art curriculum to be impactful in teaching advanced and contemporary concepts of constructing and deconstructing meaning, it is imperative that the projects be grounded in appropriate historical, cultural, and aesthetic contexts.

Eisner (2002) described five principles that should guide practice for art education. He maintained that each of these principles might differ in their degrees of importance depending on the situations; however, each is significant to providing a quality arts education program. The first principle validates the importance of visual arts education by noting that the visual arts are different from other forms of vision in that they provide distinct visible expressive qualities of the world. The second principle emphasizes that art education programs should be grounded in fostering the growth of artistic intelligence. The third principle indicates the mission of an art educations program is to support students in learning how to construct and experience the aesthetic qualities of images and understand their connections to the world. The fourth principle

strives to make students aware of their individuality by helping them identify distinct and unique characteristics regarding themselves and their art. Lastly, for the fifth principle, Eisner underscored the significance of art education programs making efforts for students to interact daily with aesthetic forms of experience.

> If the teacher's aim is to further students' understanding of the ways in which colors interact, the teacher has to decide how such understanding, given these particular students, can be promoted. In this task the teacher needs to behave like and environmental designer, creating situations that will in turn, create an appetite to learn. These situations will contain tasks and materials that will engage students in meaningful learning, learning that they can apply and that connects with other aspects of the world. (p. 47)

In conclusion, for art education to be relevant for students and their communities it is imperative that curricular practices are rooted in both the realities of contemporary cultural and school environment. For these to be accomplished, art education curriculum must be designed to intentionally train students in using the conceptual, aesthetic, and technical methodologies artists use to create meaning (Gude, 2013).

## Teaching the Visual Arts

Eisner (1983) defined artistry as a method of practice created by the imagination that utilizes techniques to select and form expressive qualities that result in an aesthetically pleasing art form. Hence, the ability to engage students' imagination is paramount to art instruction. In her article, "Investigating Interrelations in Visual Arts Education: Aesthetic Inquiry, Possibility Thinking and Creativity," Pavlou (2013) concluded characteristics of the pedagogical framework encompass the idea that art can

be understood through firsthand connections, which establish the conditions for stimulating an aesthetic means of inquiry. Aesthetic inquiry in turn inspires the growth of possibility thinking which leads to the transforming of ideas into a visual art form. Eisner (2002) contended the role of the teacher in this process is to assist students in developing a specific purpose to guide their work. The nature of the arts encourages expressive and exploratory pathways; however, without a purpose in mind the intention of the artist is never realized. A work of art is generally guided by an idea that is developed using materials within a medium. A student's purpose is most likely to be achieved when the teacher restricts the materials or establishes parameters. In addition, the teacher must skillfully assist the student in organizing a problem in a way that allows room for both personal interpretation and clarity of focus.

These processes are established through the instructor's use of entry points to begin a dialogue relative to the student's work. Entry points provide support and critique for the student from a personal and aesthetic perspective (Eisner, 2002). Stewart (1997) explained entry points enable the teacher to utilize the aesthetic theoretical positions of (a) formalist, (b) expressionist, (c) contextual, (d) instrumentalist, (e) institutionalist, (f) linguistic, and (g) imitation, as points of discussion or as a framework for the development of a perspective. These perspectives provide teachers avenues to engage students in critically solving aesthetic issues by reflecting, clarifying, and refining their ideas through multiple lenses. This important pedagogical strategy can manifest in a variety of ways and requires the instructor to model requisite skills, the proper use of tools and materials, and provide focus to a problem while providing the student avenues for personal interpretation. For example, an instructor might comment on the student's

idea, or on how the materials or the technique for crafting the form were used. Moreover, they might have the student consider the relationship between their work and the work of others. Mitchell (2014) found the use of transactional dialogue and modeling to assist, challenge, and assess students were fundamental pedagogical practices. Teachers engaged with students either as a class, individually, or in groups. The discussion focused on ideas, skills, and the making of art. Learning was a collaborative process between the teacher and students; however, the expectation for students to create a tangible work of art was evident. In addition, the modeling of art-making to illustrate ideas and possibilities was central to classroom instruction. The complexities of transactional dialogue and modeling required the teacher to generate innovative methods to learning while exhibiting art-making skills.

These examples require the art teacher to access a skill set that walks a narrow line of providing constructive criticism for the personal form of expression while communicating the desired outcomes. Also, imperative to these pedagogical skills is the teacher's ability to continuously establish connections between past and current projects, and leveraging the connection between current projects and real-world scenarios (Eisner, 2002). Most importantly, the teacher must serve as a partner in inquiry and someone who shares equally with the student's desire to learn (Stewart, 1997). Lindström **(**2011) summarized the unique pedagogical challenges for the art teacher by indicating instruction within the visual arts is centered on the teacher's knowledge and insights. Through these factors, students are assisted with developing skills and understanding artistic concepts. Conversely, artistic knowledge is centered on the artist's viewpoint and

used to enhance the scope of their viewpoint by being exposed to new ideas and methods. The challenge for the teacher is to meld the two through the course of instruction.

## Visual Arts and School Culture

Eisner (2002) argued from an anthropological stance that the term *culture* is a shared way of life; however, from a biological perspective culture serves as a means for growth. Hence, societies as well as schools operate as a culture in both senses of the term. Both possess the characteristics of a shared way of life, an awareness of community, and are a means for growth and cultivation, such as the minds of children. The organization of schools, the curriculum, the values and standards they instill, and the relationships they nurture between adults and children are all significant to creating the experiences that students are likely to encounter and in the process effect who children will become. In relation to culture and art education**,** Gude (2013) asserted truly successful schools recognize the endless possibilities of integrating art into the core mission of the schools. Through utilizing an array of methods from an extensive collection of disciplinary practices to spark inquiry, art education can become the keystone in school transformation.

Relative to this transformation, Lightfoot (1983) revealed in her book, *The Good High School: Portraits of Character and Culture*, that faculty are devoted artists who unite pedagogy with artistic practice. Students see their teachers working to develop ideas, honing their skills and craft, while infusing the curriculum with an enthusiastic approach. Moreover, the artistic process of creating and recreating is continuously revealed and shared with students so that they understand the amount of work and thought that goes into making an art form. In addition, student and teacher collaboration

enhances school culture by employing an interdisciplinary approach to implement relevant curriculum. This process creates the possibility and momentum to design a new form of art education that includes collaborative and substantive interdisciplinary aesthetic practices**.** Regarding collaborative and aesthetic practices, Mitchell (2014) noted teachers' regular use of the term "we" within the classroom. This pedagogical practice resulted in teachers co-constructing with students in the creation of works of art. The works of art were then displayed for improving the status of art within the school and community. In addition, teachers' sense of belonging to the school was enhanced as they worked conceptually with students to develop ideas that originated from the students' experiences within the school.

Lightfoot (1983) concluded the quality of teaching, learning, and school culture are enhanced when curricular and pedagogical practices include the entire student population. The high school's course catalogue displays the faculty's commitment to address the wide-range of students and their diverse needs. In addition to a myriad of academic offerings, the visual arts provide copious aesthetic curricular opportunities in the visual arts such as: (a) drawing, (b) painting, (c) sculpture, (d) ceramics (e) poetry, (f) fashion, (g) print making, (h) calligraphy, (i) book design, (j) cartoon animation, (k) jewelry making, (l) photography, and (m) filmmaking. The vibrant and colorful works of art that are products of these courses are showcased throughout the halls, common areas, and school's exterior. The fact that these works of art remain intact over the years speaks to the pride and appreciation students feel toward their school. Teachers view the exhibited art work as an aesthetic dimension of school culture. Furthermore, they are

committed to the increase of cross curricular work, and perceive the integration between artistic expression and intellectual capability as an essential to the success of the school.

In conclusion, for the visual arts to contribute to the reinvention of schools through the development of a new form of art education that is collaborative in nature. Gude (2013) stated art education must include a breadth of aesthetic approaches that enable the teacher to engage students in understanding the cultural impact of art.

## Art and Science

The relationship and commonalities between the disciplines of artistic expression and scientific discovery have been well documented throughout history. Both disciplines require experimental and investigative processes to create or arrive at a conclusion (Beal, 2013). Moreover, both rely on critique and analysis to refine meaning and perfect solutions (Fulton-Steele, 2016). Scientific advancements in technology have brought about a plethora of advancements in artistic techniques which has led to the creation of new art forms (Grillo, 2009).

For the technological advancements to be utilized in the creation of art, the artist must be educated in the use of scientific knowledge ("Case studies stem to steam," n.d.) In addition, the relationship between art and science is relevant to education and specifically the study of the visual arts because the integration of art into a cross-curricular framework provides a more robust context for learning and heightens student engagement ("Integrate the arts, deepen the learning," 2012).

According to Beal (2013), outwardly, an artist and a scientist operate in two distinct realms. An artist's work is characterized by imagery, metaphor, illusions, perceptions, and emotions. Numbers, equations, and data occupy a scientist's work. An

artist views the world subjectively and uses a specific medium to convey an idea or an experience beyond conventional analysis and description. Conversely, a physicist strives to explain the principles and laws of the physical world through the objective methods of observation, inquiry and quantifiable evidence. A closer examination reveals that there are many commonalties between artistic expression and scientific discovery. Both disciplines utilize and exhibit the qualities of research, observation, experimentation, discovery, collaboration and innovation. In addition, "the same creativity that inspires beautiful works of art is the same creativity that has led to some of the world's highest-performing, useable and visually appealing inventions" (Bertram, 2014, p. 2).

The visual, literary, and performing arts have been beneficiaries for hundreds of years of advancements in science and technology (Grillo, 2009). The relationship between art and science investigation emerged during the Middle Ages and continued through the 19th century (Hirsch, 2014). Eskridge's (2003) lecture, *Exploration and the Cosmos: The Consilience of Science and Art* indicates the relationship became most apparent during the High Renaissance when the painter and draftsman Leonardo da Vinci created works of art based on scientific investigation. Leonardo studied physiology and anatomy to create human lifelike images. Another artist whose work exhibited the connection between art and science is Dutch painter Johannes Vermeer. Vermeer's 1668 painting, *The Astronomer*, demonstrates the subject's interest in cartography and astronomy (Eskridge, 2003).

In the late 19th and early 20th centuries, Impressionist artist utilized advancements in the science of color and light to create a *contingent* movement. Claude Monet's 1868 painting, *On the Bank of the Seine*, Bennecourt captured the interaction between

impression and perception by the brain processes penetrating images in the form of color and light to create the perception of a passing moment. During this time, French chemists invented premixed paints packaged in tubes and synthetic pigments. Georges Seurat utilized the new paints to develop *Pointillism*, a technique using small colored dots to create an image (Eskridge, 2003).

At the turn of the 20th century, Pablo Picasso's style of *Cubism* used geometric shapes and interlocking forms to paint his subjects and objects across the canvas surface. His 1910 *Daniel-Henry Kahnweiler* was painted just five years after Albert Einstein proclaimed his theory of relativity, which provided a counterintuitive view of reality. Similarly, Picasso's Cubism illustrated the indefinable existence of his subject. In addition, the invention of photography in the 1830s combined science and technology by placing oxidized images on paper or metal. Ansel Adams' 1942 *The Teton and the Snake River, Grand Teton National Park Wyoming* involved the connection between man and nature while capturing with amazing technical precision the extraordinary properties of light and nature (Eskridge, 2003).

The close relationship between science and the visual arts gives the human brain the capacity to develop images and representations of reality as well as pure fiction within its mind's eye. In the 1950s, to solve the mystery of DNA's structure, James Watson and Frederick Crick had to visualize several three-dimensional models before imagining the formation of the spiral helix to explain the molecule's strange behavior. This exemplified an incredible union of visual art and biology that had an everlasting impact on the scientific world (Sousa, 2006). In the twenty-first century, through combining technology with the elements of visual design, the innovator Steve Jobs

propelled an unprecedented desire for electronic products by applying visual artistry to the scientific realm (Fulton & Simpson-Steele, 2016).

Sousa (2006) viewed a natural overlap between science and art. They both include ideas, theories and hypotheses and are tested in either the laboratory or studio where mind and hands unite. Artists and scientists both study materials, people, culture, history, religion, mythology, and use the information to create something novel. Menezes (2015) concluded that although artwork is evidence of a complex process guided by investigative components, it is not a thesis or a hypothesis. However, it can be related to a scientific experiment that contributes to the demonstration of a hypothesis. In his article, "When Does Art Become Science and Science Art?", Grillo (2009) maintained that through the creative process man develops something that has never existed outside of the artist's mind. Conversely, science is based on systematic knowledge formed by observation and experimentation. Scientists use a fixed knowledge point to begin an investigation and conclude it at another defined point. However, art originates from the spiritual, the subconscious, and the imaginative. The origins of art and science do not allow one to become the other; however, scientific discovery has significantly benefited the artistic realm and continues to join the two together. The joining of art and science is displayed in the areas of (a) industrial and product design, (b) architecture, (c) photography, (d) glass blowing, and (c) ceramics. Moreover, the impact of the scientific and technological inventions of 3-D printers, scanners, laser cutters, computer-controlled routers have profoundly impacted the creative fields of (a) animation, (b) film, (c) graphic and interactive design (Beal, 2013).

Lastly, Hirsch (2014) investigated the similarities and differences between an artist and scientist in *Artist as Scientist in a Reflective Universe: A Process of Discovery*. Through this investigation, Hirsch (2014) concluded art and science are complementary and dependent on each other. In summary, the creation of art occurs when artists merge their skills with the properties of the medium. The artist's understanding of the relationship between light and space is like the scientist's investigation of variables such as valence, disorder or quanta. Both the artist and the scientist contend with the conditions of nature as well as the regulated environments of a studio or laboratory. Within these settings, the artist uses the frequency of color to produce illusions of reality, whereas the physicist uses mathematics to describe and calibrate the nature of frequency. Furthermore, the artist's identification of natural patterns such as that of light and shadow are comparable to the scientist's recognition of patterns located in protons as well as the galaxies and universe. Along with careful procedures, both the artist and scientist use imagination and visualization to conceptualize an outcome. Success for artists is determined by their ability to create a coherent and beautiful product. Similarly, successful scientific outcomes are measured by the degree of coherence and elegance. As the artist moves from the abstract to the concrete, the scientist moves form the tangible to the abstract. Lastly, using media, the artist strives to *produce* an illusion of form that is characteristic of dimension, reflection, refraction and presence of substance by manipulating light and shadow. Comparably, the physicist labors to *explain* the presence of substance by calculating separate components of frequency that form illusions of dimension, reflection and refraction.

In conclusion, Beal (2013) noted the commonalties between the arts and science reveal an iterative and experimental process. Through this process, artists and scientists utilize data in novel ways to inform their practices and effect positive change. Furthermore, Fulton and Simpson-Steele (2016) contended although art and science are often viewed as two distinct realms, they both investigate the workings of the world. Subjectively, artists create situations, envision narratives, and develop imagery. Objectively, scientists pose questions, discover concepts, and foster curiosity. Both disciplines make meaning through visualization. Artists create visual and performed arrangements to make abstract meanings concrete whereas scientists conduct experiments or create models to identify the best explanation for a problem. In addition, both confirm certainties and explore possibilities for an idea they want to express though rehearsal, experimentation, or trial and error. Moreover, artistic creation and scientific inquiry require the ability to communicate and disclose the understandings for critique and analysis. In the arts, usually an audience can react to an exhibition or a performance. Similarly, scientific explanations based on evidence are constructed and debated by other experts in the field.

## STEM to STEAM Education

Jolly (2014) explained the educational pathway of *STEM* (science, technology, engineering and math) was developed as a response to the twenty-first century's economy requiring workers to acquire, integrate, and apply aptitudes in math and science to solve real-world problems by developing technologies through an engineering design approach. In addition to problem solving skills, its advocates maintain STEM education develops creative, collaborative, and entrepreneurial aptitudes. John Maeda, the president of the

Rhode Island School of Design, asserted that innovation occurs through a STEM approach; however, the integration of the arts to this process serves as an innovative strategy that enables America to be competitive in the global market. Harvey Seifter, founder of the Art of Science Learning project maintains the transition from STEM to STEAM (science, technology, engineering, art, and math) creates powerful learning opportunities by utilizing the arts and arts-based learning to inspire transformational change in science education. Advocates further contend through fostering creativity; the arts serve as a catalyst to develop STEAM innovation. This is particularly evident in the visual arts where a concept is transformed from the abstract to the concrete. Moreover, STEAM education moves beyond the concept of teaching science through the arts by connecting the arts and science together in instruction (Robelen, 2011). Transitioning to STEAM programs requires identifying opportunities where art can be naturally applied to STEM lessons and projects (Jolly, 2014). The developer of STEAM education, Yakman (2016) summarized the STEM to STEAM movement by asserting,

> STEM is what and how you can perform processes with elements and materials, STEAM includes who and why those things are done and a means by which to convey deeper level understandings of things beyond the base language of mathematics….STEAM is adding the full spectrum of the humanities and how an individual relates to the STEM fields. For those reasons, STEAM strengthens STEM education by providing a way for educators to work together to create cohesion for students with what they are taught. With this understanding they can further apply it to real-world applications, thus creating a life-long holistic approach to learning….Within the STEAM framework, Art, Music, CTE and PE

courses are where the STEM and Liberal Arts curriculum come together to give practical application of knowledge along with opportunity for rich engagement. (pp. 1-2)

To assist students in the integration of STEM and STEAM based approach the infusion of tablet technology offers students greater access to digital applications and resources as well as online curriculum and assessments (Ortiz, 2014). The leveraging of these technologies by students and teachers opens pathways to engage in STEAM related subjects (White & Martin, 2012). According to Taljaard (2016), the integration of multi-sensory technologies is easily incorporated into STEM subjects. Most specifically, students have greater access to virtual reality and multi-media applications that are accessed through interacting with a tactile sensory screen. Tablet technology can also be used with reading interventions to assists students with reading disabilities to maneuver through STEM content. Schneps, O'Keeffe, Heffner-Wong, and Sonnert (2010) investigated Span-Limiting Tactile Reinforcement (SLTR) intervention to assist students with reading disabilities in STEM related subjects. SLTR method can be utilized on touch screen devices to reformat text into a single column with limited words to segment content, aid in the processing of text, and direct the reader's gaze. The manual advancement of text increases attention and takes advantage of tactile reinforcement by punctuating each line of text.

## STEAM Education Framework

The transition from the STEM to STEAM framework occurs through the integration of the social, fine, manual, physical, and liberal arts. Examples of the arts being infused into the STEM framework can be seen in (a) language arts through sharing

thoughts, experiences, and perceptions; (b) manual and physical arts in areas relating to ergonomics; (c) fine and musical arts by the expression of societal values; (d) and liberal arts through the investigation of attitudes, beliefs, and traditions (Yakman, 2012). Within the STEAM framework, mathematics is the universal conduit between science, technology, and engineering and provides organization for these silos as well as serves as the connector between concept and understanding in education (Yakman, 2008; Yakman & Lee, 2012). The arts along with engineering are instrumental in that they encompass the multiple areas that interface with the theoretical possibilities of the other domains to form the path for growth and development (Yakman, 2008).

Yakman (2012) defined the STEAM framework as "Science and Technology, interpreted through Engineering and the Arts, all based in Mathematical elements" (p.1). The fundamental goal of STEAM education is to develop *functional literacy* by teaching the ability to transfer and apply knowledge between disciplines, maintain the pace of a global world and to improve it by contributing one's passions and abilities. Yakman and Lee (2012) contended,

> Functionally literate people are more effective because they know how to think across the spectrum of topics and understand the connections between disciplines. Students engaged with STEAM, not only learn to be literate in a singular (silo) field, but they become life-long learners who are much more capable of adapting to and advancing the global society. (p. 1075)

STEAM utilizes a multidisciplinary and reality-based perspective for developing students as learners and enhancing the application of new knowledge. STEAM education integrates non-core subjects into the STEM curriculum to emphasize the shared

connections between all areas of study. Thematic units developed around areas such as health and nutrition, power and energy, communication, transportation, and ergonomics are incorporated to illustrate how the knowledge from core classes can be applied to a scenario. Preferably the thematic units are taught by teachers from multiple disciplines. Each teacher constructs lessons and projects based on their discipline's benchmarks and standards to assist students in identifying common elements amongst topics and between disciplines (Yakman, 2012). Subjects continue to maintain their educational base so that teachers can collaborate with colleagues to address issues within their content area and identify commonalities relative to other disciplines. Teacher collaboration is critical to students recognizing various contexts and broadening understandings through the transference of knowledge between topics within a discipline. In addition, collaboration between disciplines exposes students to practical opportunities and influences that teach ways to manage to the real-world (Yakman & Lee, 2012).

The STEAM educational framework is categorized according to the following levels: (a) universal, (b) integrated, (c) multidisciplinary, (d) discipline specific, and (e) content specific. The universal level relates to the idea of holistic education (Yakman, 2008). At this level, the pursuit of life-long education occurs when individuals access their environments' internal and external influences to make meaning of their surroundings. At the integrated level, students gain knowledge in a variety of domains and an understanding of their relationship to one another. Through exploration, students begin to grasp and interpret the areas of opportunity in the sphere of education by instilling the perspectives, practices, and cognitive skills to be versatile life-long learners. The development of versatile life-long learners is accomplished by collaborative teachers

providing depth within in their specific subject while supporting the learning occurring in other content areas (Yakman, 2008; Yakman & Lee, 2012). The multidisciplinary level provides students the opportunity to study selected areas and a focused synopsis of how they inter-relate (Yakman, 2008). Reality-based authentic units lend to the study of inter-relations. At the integration level, thematic units are taught with a balanced approach whereas at the multidisciplinary level, the topics that are not the main emphasis should not be excluded from the curriculum, rather, should be taught as being a component of the scope that would transpire (Yakman, 2008; Yakman & Lee, 2012).

Individual subjects become the focus of instruction at the discipline-specific level. Other subjects are addressed in context; however, the essential topic is studied more thoroughly. The content specific level is the most detailed level of the framework. At this level, students develop professional capacities within a specific silo by probing into content areas of interest. These areas are studied separately or in groups contained within a silo or can also be studied between multiple disciplines. It is at this juncture where educational and professional practice is most mutually related to each other's developments (Yakman & Lee, 2012).

In summary, STEAM education supports the integration of the disciplines by using a framework to identify and solve real world problems. (Yakman, 2008). Part of this framework is based on Dewey's idea of functional literacy through an integrated and technical competence means to learning. Through attacking the concepts of studying content into separates silos, Dewey built the structure for interdisciplinary studies by emphasizing the importance of identifying the connections between the concepts, contents and contexts of cross-curricular studies. He argued that meaningful learning

occurs through inter-related and contextual constructs. Moreover, he recognized the importance of individual disciplines; however, by detecting the connections a whole and deeper understanding is obtained by the learner (as cited in Yakman, 2008). Dewey stated, "We learn, but only at the end, that instead of discovering and then connecting together a number of separate realities, we have been engaged in the progressive definition of one fact" (as cited in Yakman, 2008, p. 4). Building upon this notion, STEAM enables students to develop a collection of work that reflects current scholarship based on real-world problems which require them to access their knowledge in a variety of approaches for transference. Through the process of transference, students acquire a broader and deeper understanding of the interconnections between disciplines and topics. As a result, they build the wherewithal to maneuver and interact with the real-world (Yakman & Lee, 2012). Yakman and Lee (2012) noted Dewey's concise thoughts regarding the merits of integrated and reality-based inquiry, and explanation for why it is difficult to implement.

> Experience that is integrated – that which attains the fullest possible meaning – is a primary goal of human activity … growth under the circumstances of life as an ongoing experiment involves risk and the willingness to relinquish authority of tradition, but it should enable the person as well an entire society, to look critically at previously accepted beliefs in light of new experience. (Dewey as cited in Yakman and Lee, 2012, p. 1077)

With this in mind, Yakman (2008) began to formalize the STEAM framework by recognizing the inter-related understandings between science and technology, which advance through the research and development in engineering and which is reliant on the

understanding of the arts and mathematics. Through further research, she argued that because the arts are a component of education and their application impact the social construction of society they should not be excluded from the STEM education. In addition, engineering's direct relationship to technology regarding research and development further solidified the integration of the arts into the STEAM framework. Yakman concluded "the arts and engineering contain all of the divisions that interact with the pure possibilities of the other fields to shape the direction of development" (2008, p. 18). From this evolution, the STEAM framework used engineering and the arts to interpret the disciplines of science and technology while utilizing the common language of mathematics (Yakman, 2012).

Concerning research related to a STEAM centered educational approach, Speropolous (2017) found high school students who participated in STEAM-based curriculum were more likely to increase their engagement in school as well as their academic performance. In addition, students maintained they were better prepared for post-secondary education and employment than students not exposed to a STEAM infused program. Moreover, Townes' (2016) investigation of the impact on student achievement found exposure to STEAM education did not impact middle school students' standardized math scores; however, did positively impact reading and science achievement. Tucker's (2017) study of the impact of arts integration on reading achievement for fifth grade students also found assessment scores improved for over three-quarters of the students that participated in a STEAM based educational program. Lastly, Rabalais (2014) found there was a correlation between the number of credits students earned in the arts and their performance on assessments in the STEM related

subjects of math and science. Overall, the subgroups of gender, race, and economically disadvantaged students that acquired art credits attained greater achievement results on math and science summative assessments than their peers who did not acquire art credits.

## Art and the Brain

In her article, *Art and Brain: Insights from Neuropsychology, Biology and Evolution,* Zaidel (2010) maintained that art is exclusively a human exercise that requires symbolic and abstract cognition. Through the review of case studies relating to brain damage in established artists, Zaidel (2010) concluded, "The weight of evidence therefore favors art as a multi-process activity, one that depends on several brain regions and on redundancy of art-related functional representation rather than on a single cerebral hemisphere, region or pathway" (p. 178). In relation to the visual arts, as information enters the brain,

> the parietal lobe processes the spatial layout, the temporal lobes the names and memory, and the occipital lobe processes color, movement, contrast, form, and other critical elements of vision. But the frontal lobes are involved in both the attentional process and the decisions about how long to look at art. (Jensen, 2001, p. 55)

Through the advancement of functional magnetic resonance imaging (fMRI), neuroscientists have been able to study the effects of art on cognitive functions. A study conducted by Bolwerk, Mack-Andrick, Lang, Dorfler, and Maihofner (2014) explored the differences between the effects of visual production and cognitive art evaluations on the functional interplay of the brain's default mode network (DMW). The DMW is related to a variety of cognitive processes and is identified by the positive and negative connectivity

between multiple cortices of the brain. Bolwerk et al. (2014) hypothesized that the functional interplay of the DMN would be altered by participating in a ten-week visual art production group. The visual art production group drew works of art using a variety of methods, techniques, and materials. The cognitive art evaluation group discussed, analyzed, and interpreted selected works of art with an art historian. Pre-and post fMRI measurements revealed increased functional connectivity of the DMN for the visual art production group. The cognitive art evaluation group results indicated no increase in the functional interplay of the DMN (Bolwerk et al., 2014).

In his book, *Arts with the Brain in Mind*, Jensen (2001) reviewed multiple studies that suggested that the arts play a critical role in the development of the human neurobiological systems relating to integrated sensory, attentional, cognitive, emotional, and motor capacities. Jensen initially noted music most enhances the cognitive systems of spatial reasoning and creativity by the activation and synchronization of neural firing patterns that connect to multiple areas of the brain. The synchronization of neural firings enhances the brain's efficiency and effectiveness in the frontal, parietal, and temporal lobes, and cerebellum. Music also activates multiple brain regions that enact emotional intelligence by stimulating complex neural networks associated with behaviors. Perceptual-motor systems may also be enhanced through singing, listening, and playing music. These activities strengthen the ability to distinguish sounds and make auditory improvements which are significant to the development of reading skills. Lastly, music impacts the brain's abilities to remember by activating attentional systems connected to neural pathways that regulate memory and recall. Learning to read and play music or relate a song with a personal event during a specific event or period in one's life enhances

memory. Moreover, musical instruction and exposure to specific beats, harmonies, melodies, and lyrics provide a pathway to transport semantic content. The placing of words to a beat or melody facilitates verbal memory (Jensen, 2001).

In addition, Jensen (2001) explained whether recreational, dramatic, or industrial; the kinesthetic arts activate multiple neurobiological systems. The nature of the kinesthetic arts requires the complex act of creating an effect that involves the mind and body, coupled with managing environmental stimuli. Environmental constraints such as other players on the field or power tools in a workshop requires accessing and coordinating more regions of the brain than traditional seatwork. The brain's transmission of nerve impulses to the muscles required to complete the desired movement activates cortical areas. Referred to as *spatiotemporal pattern* or *cerebral code*, the brain and body work together to produce simple to complex sequenced movements (Calvin, 1996). The greater complexity of the movement requires more areas of the brain to be involved. Movements such as running, drumming or cutting wood activate sequences that are extended to subcortical levels. However, complex and novel movements that require balance, attention, control of emotions, rapid decisions, identifying problems and creating solutions instantaneously, and recognizing the expressions of others access multiple locomotor, manipulative, and cognitive areas of the brain (Corso, as cited in Jensen, 2001).

## Two Hemispheres of the Brain

The complexities of the brain have posed a long-lasting enigma for scientific inquiry. Since classical times it has been known that the brain is comprised of two symmetrical halves. Referred to as the left hemisphere and right hemisphere, modern

studies have concluded that each hemisphere controls movement and sensation in the opposite half of the body (Gardner, 1982). Well into the modern age, scientists maintained that although the two hemispheres were symmetrical, they were unequal in their cognitive abilities (Pink, 2005). The theory that higher cognitive functions were organized asymmetrically in the left and right hemisphere arose from the studies of patients who had lost their functions of language because of brain damage (Gardner, 1982). Referred to as aphasia, scientists concluded that for most individuals' loss of language function was a result of damage to the left hemisphere. These conclusions coupled with the facts that language functions are inextricably connected to thinking and reasoning capabilities which separate human beings from animal species perpetuated the theory of a dominant hemisphere (Edwards, 1989; Gardner, 1982).

In her book, *Drawing on the Right Side of the Brain*, Edwards (1989) described California Institute of Technology Professor Roger W. Sperry's work questioning the prevailing view that the left hemisphere was more advanced and evolved than the right hemisphere. Beginning in the 1950s, Sperry concluded the corpus callosum, the connecting fiber between the two halves transmitted memory and learning between the two hemispheres. In addition, Sperry found if the corpus callosum had been severed, the two hemispheres continued to operate separately. Further studies on the corpus callosum indicated that each hemisphere was capable of higher cognitive functions and specialized in different modes of thinking. The left hemisphere specializes in verbal, analytical, and sequential thought. The right hemisphere processes and interprets nonverbal expressions and emotions, and reasons spatially and holistically.

The impact of these findings reveals that an individual is capable of two different ways of thinking and perceiving the world. An intact corpus callosum provides the conduit for the two hemispheres to combine and reconcile perceptions within an individual. Moreover, they work together to complete tasks to maximize each hemisphere's abilities. However, hemispheres can also work independently (Edwards, 1989).

Eisner (1994) further discussed hemispheric specialization and the utilization of various brain functions in his book *Cognition and Curriculum Reconsidered*. Eisner noted that environmental conditions often provide the stimuli for an individual to access specific cognitive capacities; however, the response to the stimuli may vary depending on the individual.

> A bridge, for example, can be perceived…as a means for calculating height or length, or for estimating the amount of time it will take to cross at forty-seven miles per hour….It is likely; furthermore, that what an individual knows how to do and what he or she enjoys doing creates a response tendency that increases the probability that certain modes of thought will become characteristic. The painter will characteristically view the bridge as an expressive form having shape, scale and color or as a candidate for a painting….The engineer regards it as an achievement in managing stress. Each construe the bridge in different terms, the terms with which each is most competent. (p. 27)

Edwards (1989) concluded since the hemispheres processes the same sensory information differently, a task may be completed one of two ways. First, each hemisphere may divide a task and address the part suited to its strengths. Secondly, one hemisphere, most likely

the dominant left will, assume control and impede the right hemisphere. The two factors that determine which hemisphere will be utilized are speed and motivation. The brain assigns task based on which hemisphere will complete the task the quickest. It also considers which hemisphere is most and least motivated to handle the task.

## The Arts and Cognitive Development

Eisner (2002) defined *cognition* as the "processes through which the organism becomes aware of the environment or its own consciousness. It includes the most sophisticated forms of problem solving imaginable through the loftiest flights of imagination" (p. 9). When describing the multiple mental capacities for the arts, Eisner contended the arts provide the conditions for us to be consciously aware of our surrounding world. Mental capacities for the arts occurs through utilizing the imagination in the search of new possibilities. Through this process, the arts free us from the literal, foster a sense of empathy and tolerance, explore uncertainty, and employ judgment without adhering to rigid rules and procedures. The arts enable us to reflect and to think subjectively. In addition, the creative process provides the medium to inscribe our ideas into an artistic form. Lastly, the arts provide the opportunity to develop how humans respond to an aesthetic experience.

As an advocate of the arts, Eisner (2002) argued they are viewed negatively as a frivolous and playful activity. He maintained that the perception is based on the ideas that the arts are a concrete rather than an abstract endeavor. They access emotional instead of mental capacities, and are associated with the ability to create objects with the hands as opposed to the mind. However, Eisner further contended this perception is thwarted by the complex cognitive modes of thought that are required to identify nuances

between qualitative relationships, conceive imaginative possibilities, construe metaphorical meanings and harness unexpected prospects during the artistic process.

In the publication, *Learning and the Arts: Crossing Boundaries* (2000), Eisner described the cognitive, creative, and developmental aptitudes children obtain through arts education. Eisner summarized ten lessons the arts teach as the following:

1. the arts teach children to pay attention to qualitative relationships; attention to such relationships is critical for creating a coherent and satisfying piece of work;
2. the arts teach children that problems can have more than one solution and that questions can have more than one answer;
3. the arts celebrate multiple perspectives;
4. the arts teach children that purposes in complex forms of problem solving are seldom fixed, but change with circumstances and opportunity;
5. the limits of our language do not define the limits of our cognition;
6. the arts teach students that small differences can have large effects;
7. the arts teach students to think through and within a material, all art forms employ some means through which images become real;
8. the arts teach the nature of discourse about art;
9. the arts enable us to have experience we can have from no other sources and through such experience to discover the range and variety of what we are capable of feeling;

10. the position of the arts in the school curriculum symbolizes to the young what adults believe is important. (*Learning and the Arts: Crossing Boundaries*, 2000, pp. 7-13)

In conclusion, Eisner succinctly summarized the arts foster intellectual growth by providing real-world learning scenarios; enhance meaning beyond the literal by accessing feelings; and develop experience through stimulating emotions during the creation or viewing of an aesthetic work (*Learning and the Arts: Crossing Boundaries*, 2000).

Elaborating on Eisner's view in more scientific terms, Solso (1994) described the three stages of human visual cognition in his book *Cognition and the Visual Arts*. Visual cognition begins with the functions of the peripheral nervous system distinguishing various shapes, colors, and movements. Secondly, the organizing of these fundamental forms of representation begins the process of seeing and understanding an object within a scene. Through the acquisition of prior knowledge, forms within a specific context are given a more in-depth meaning; thus, the level of cognition begins to heighten. Built upon the previous two stages, the third stage of *higher level* cognition occurs when an object is viewed to have meaning beyond its fundamental form. The disciplines of art, as well as music, literature, and science access the third stage of cognition. Through this process, the brain becomes aware of the relationships between ideas and the association of objects to each other (Solso, 1994). Eisner (1994) argued that the forms of representation used to create art, music, dance, literature, math, and science consists of their own parameters of possibility for the development of meaning. As a result, perhaps the most important purpose of education is for students to build the cognitive skills necessary to create meaning for the multiple forms or representation they encounter.

Similarly, Gardner's (1983) theory of multiple intelligences outlined human intellectual competencies that represent specific cognitive skills. The forms of intelligence are linguistic, musical, logical mathematical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal. In general, individuals possess some capacity in each domain; however, due to genetic and environmental factors, individuals vary in their development of each intelligence. Although there is not a designated artistic intelligence, each way of learning can be used for an aesthetic purpose (Gardner, 1989).

Gardner viewed "school as a place to develop the different components of the mind" (as cited in Brandt, 1987, p. 30). Individuals should be trained to think in terms characterized by the disciplines of science, math, history, and the arts. These disciplines serve as gateways to more in-depth study and lead to a discipline mind. The arts teach the ability to anticipate, discern, and process constructive criticism. In addition, the arts require the individual to access a variety of cognitive skills to synthesize an idea embodied in a work of art (Gardner, 2008).

Gardner (1982) found children transition through three stages in their understanding of art. The first stage occurs between the ages of four and seven, and is characteristic of children viewing artistic production as a simple and mechanical activity. In addition, all judgements relating to artistic quality are valid. The second stage emerges around the age of ten where children begin to understand the concept of criteria in judging the quality of art. During the third stage, adolescences recognize differences of opinion and values exist relative to the evaluation of art.

The development of children as artists begins at age two with the recognition and processing of the various symbol systems within their culture. Through the age of seven,

children become fluid in the use of symbols by learning to speak, draw, and gesture. They can manipulate number and music systems, and have attained skill in multiple forms of media. The development of numerical and linguistic symbol systems through exploration and experimentation lends to the creation of less egocentric and more personally satisfying works of art. The net result is the development of "first-draft knowledge" for the procedures and norms of artistic practice (Gardner, 1982).

According to Goodman, (as cited in Gardner, 1982) the aesthetic characteristics of *replete* and *expressive* are informally introduced in the graphic medium. The ability to operate in the replete manner is illustrated in a line drawing by exhibiting the elements of thickness, shading, and texture. A drawing that operates as an expressive symbol projects a specific mood, expression, or emotion. By age ten, children display skill in the production and perception of each dimension; however, the development of the qualities associated with repleteness remains a work in progress. As children enter adolescence they begin to vary their works of art to convey a certain effect (Gardner, 1982).

In addition to the graphic medium, children also exhibit artistic growth in figurative language. The ability to create and understand functional metaphors, assonances, rhymes, and rhythmic patterns emerges during the preschool years. As children enter school, their ability to process expressive and psychological metaphors becomes evident. In the visual arts and figurative language, school age children increase their awareness of the multiple uses of an artistic medium. Moreover, they understand the effects a specific artistic medium can produce.

Gardner (1982) maintained as children build upon their artistry they simultaneously become more aware of the practices and norms of society. This

awareness leads to reluctance to experiment and adventure beyond cultural standards. The qualities that are valued in the artistic realm and freely practiced at a younger age become taboo. Unless pedagogical practices support and provide a secure environment for experimentation children remain mired in the "literal stage." The literal stage occurs from the ages of eight to ten and is characterized by a disinterest in abstract works of art, and figurative language. During this stage, children demonstrate an affinity for realism and view art in a purely literal sense. For most children, the literal stage marks the peak of their artistic production. Adolescents and adults that create authentic works of art or novel metaphors become the exception unless the proper educational aides are utilized to assist children in navigating through the literal years. In general, children that create works of art beyond the literal years are subject to the emphasis of skill development upon their entrance to school through preadolescents. Adolescents and adults that possess developed skills are more likely to explore medium and experiment beyond traditional practices and boundaries that restrict literal age children.

To successfully transition through the literal stages, Gardner (1990), emphasized the three most important factors in developing a child's competencies in the visual arts are perception, conceptualization, and production. Through perception, a child becomes adept at distinguishing style in artistic works. The competency of conceptualization is developed as the child reflects to understand their individual works and works of others. The evolution of conceptualization should be assisted by others skilled in the domain and by providing the child time to reflect upon their understanding of the artistic realm. The third competency of artistic production becomes the most critical factor in the development of a child as an artist. Gardner asserted,

> At adolescence, a new synthesis may occur: the youth now weds his technical facility to a more personal vision, as artworks become an occasion for expressing in a symbol system appropriate to the youth needs, wishes, and anxieties of importance. When this kind of productive union can occur, the youth is likely to feel engaged and to continue artistic pursuits. But when (for whatever technical or personal reason) such a fusion cannot be realized, the youth is far less likely to remain involved in the arts, at least as a producer. (p. 19)

Furthermore, to fully develop the artistic capacities of perception, conceptualization and production, Gardner (1990) states "decisions about art education cannot be made in a vacuum of values: what we think is meritorious in children's art, and how we relate juvenile productions of adult works, carry important implications for how we instruct the younger generation" (p. 22).

Although the knowledge of art and cognitive development has grown, Gardner (1990) concludes that there are too many cultural and individual factors relating to the varying degrees within the forms of intelligences to consider in the development of a foolproof formula in art education. Gardner recognized the significance of a broader based approach to cognition that emphasizes five human competencies. Referred to as forms of knowledge, these competencies should be introduced and mastered in the school environment. They are identified as intuitive, symbolic, formal bodies, craft, and notational systems. Gardner maintained that human artistry is essentially an activity of the mind; therefore, requires the transformation and interaction of the various forms of knowledge. Moreover, during the instruction of conceptual and formal knowledge relating to art, it is beneficial to use situated learning to expand a child's artistic

knowledge. Relating to art education, situated learning is most effective when students are involved in meaningful projects that build artistic skills, utilize the various forms of artistic knowledge and develop an understanding of the artistic process. In addition, the evaluation of these projects provides students the opportunity to observe and self-reflect on their progress and to receive useful feedback.

The status of cognitive theory for arts education transformed during the late 1960's with Harvard University's founding of Project Zero. The prevailing theory "among art educators and theorists, was the belief that the arts were primarily a realm of emotion, mystery, magic, or intuition. Cognition was associated with science and problem-solving, not with the creativity needed to fashion and appreciate artistic masterpieces" (Gardner, 1989, p. 72). Gardner notes, as Project Zero progressed, a consensus developed that artistic activities were cognitive. The acts of reading and writing symbol systems relative to the arts; distinguishing styles of music or creating lyrics; recognizing allegoric content within literature; and utilizing shapes and colors to express a mood required accessing cognitive capacities. Project Zero recommended the following trends for arts education:

1. at younger ages (below, … ten), production activities ought to be central in any art form;
2. perceptual, historical, critical, and other "peri-artistic" activities should be closely related to, and (whenever possible) emerge from the child's own productions;
3. arts curricula need to be presented by teachers or other individuals with a deep knowledge of how to "think' in an artistic medium;

4. whenever possible, artistic learning should be organized around meaningful projects, which are carried out over a significant period of time, and allow ample opportunity for feedback, discussion, and reflection;
5. in most artistic areas, it will not be profitable to plan a K-12 sequential curriculum;
6. assessment of learning is crucial in the arts;
7. artistic learning does not merely entail the mastery of a set of skills or concepts, the arts are also deeply personal areas, where students encounter their own feelings as well as those of other individuals;
8. it is risky – and in any case, it is unnecessary – to teach artistic taste or value judgements directly; however, it is important for students to understand that the arts are permeated by issues of taste and value which matter to anyone who is seriously engaged in the art;
9. art education needs to be a cooperative enterprise involving artists, teachers, administrators, researchers, and the students themselves. (Gardner, 1989, pp. 76-77)

In his book *Art as Experience*, Dewey (1934) maintained that art in its creation and viewing should be identified as an experience. Dewey defined an experience as when an object reaches a level of fulfillment that conveys its own individualizing quality and self-sufficiency. An experience is easily recalled and serves as an enduring memorial to the encountered situation or episode. In relation to art as an experience, Dewey noted "'artistic' refers primarily to the act of production and 'aesthetic' to that of perception and enjoyment" (p. 48). Dewey emphasized that the production of art and the enjoyment

of the aesthetic experience support each other. In summary, "art denotes a process of doing or making….'aesthetic' refers…to experience as appreciative, perceiving, and enjoying. It denotes the consumer's rather than the producer's standpoint….To be truly artistic, a work must also be aesthetic…framed for enjoyed receptive perception" (pp. 48-49). To achieve this result, Dewey asserted that the artist must manifest in themselves the attitude of the perceiver while they work. Furthermore, "the real work of an artist is to build up an experience that is coherent in perception while moving with constant change in its development" (p. 53).

Concerning the acquisition of cognitive capacities to create an aesthetic experience, Dewey (1934) maintained that an experience is made an experience through integrating the relationships of undertaking and feeling outward and inward energy. Moreover, an enormous quantity of thought and the degree of intellect utilized during the awareness of qualitative relationships symbolizes creativity in art. According to Dewey, an artistic idea that is based on words or symbols from a specific media requires a sophisticated thought process. Furthermore, the intellectual capacity to create an artform extends beyond the thinking required to manipulate words and symbols either written or expressed mathematically. Dewey (1934) further emphasized the connection between cognition and the aesthetic by stating,

> What is even more important is that not only is the quality a significant motive in undertaking intellectual inquiry and in keeping it honest, but that no intellectual activity is an integral event (is an experience), unless it is rounded out with this quality. Without it, thinking is inconclusive. In short, aesthetic cannot be sharply

> marked off from intellectual experience since the latter must bear an aesthetic stamp to be itself complete. (p. 40)

Dewey (1934) believed that man utilized nature's resources in conjunction with his mental and physical abilities to create art for enriching one's life. Dewey argued,

> Art is living and concrete proof that man is capable of restoring consciously, and thus on the plane of meaning, the union of sense, need, impulse, and action characteristics of the live creature. The intervention of consciousness adds regulation, power of selection, and redisposition. Thus, it varies the arts in ways without end. But its intervention also leads in time to the idea of art as a conscious idea – the greatest intellectual achievement in the history of humanity. (p. 26)

Eisner (2002) contended viable scholastic art programs nurture flexibility, support risk taking, instill tolerance for ambiguity, and foster the exercise of judgment outside the spheres of rules. Furthermore, programs that promote cognitive development require students to conceptualize their own aims in the art form in which they are working are centered on problem solving, require students to be reflective regarding their thought process, and expressive about their artistic judgments. Eisner's assertions are supported by Dewey's (1934) theory that,

> A painter must consciously undergo the effect of his very brush stroke or he will not be aware of what he is doing and where his work is going. Moreover, he has to see each particular connection of doing and undergoing in relation to the whole that he desires to produce. To apprehend such relations is to think, and is one of the most exacting modes of thought. (p. 47)

Gardner (1990) maintained that "the challenge in arts education is to modulate effectively among the values of the culture, the means available for arts education and assessment, and the particular development and individual profiles of the students who are to be educated" (p. xiii). The California Department of Education's (2004) *Visual and Performing Arts Framework* outlines the standards to incorporate into a comprehensive art program. The standards serve as a blueprint for educators to provide students a strong foundation in the arts. Within these standards are five essential strands that address: artistic perception, creative expression, historical and cultural context, aesthetic valuing along with connections, relationships, and applications.

1. Artistic perception is the processing, analyzing, and responding to sensory information through the use of the language and skills unique to dance, music, theatre, and the visual arts.
2. Creative expression involves creating a work, performing, and participating in the arts disciplines.
3. Historical and cultural context concerns the work students do to understanding the historical and cultural dimensions of an arts discipline.
4. Aesthetic valuing includes analyzing and critiquing works of dance, music, theatre and the visual arts.
5. Connections, relationships, and applications involve connecting and applying what is learned in one arts discipline and comparing it to learning in the other arts, other subjects and careers. (The California Department of Education, 2004, p. 3)

Many cognitive capacities are developed and accessed through the involvement of each strand. Artistic perception requires the brain to organize basic stimuli and is fundamental to understanding art (Solso, 1994). The process of creative expression requires the brain to access facts and theories across multiple domains to formulate a rational and complete artistic product (Gardner, 1982). Through aesthetic valuing the student re-educates themselves with the process and outcomes of the work of art. This exercise requires the student to describe, interpret, evaluate and to extract themes. Historical and cultural context builds an understanding of art as a cultural artifact. This cognitive process helps the student to make aesthetic connections to any aspect of their life (Eisner, 2002).

## Imagination and Creativity

The arts play a significant role in honing our sensory system and developing our imaginative capabilities (Eisner, 2002). Imagination is an important cognitive function that generates possible images for creating possible worlds. Moreover, imagination allows an individual to experiment with an image in their mind's eye and provides a safeguard for experimentation and practice (Dewey as cited in Eisner, 2002). Dewey (1934) contended "An imaginative experience is what happens when varied materials of sense quality, emotion, and meaning come together in a union that marks a new birth in the world" (p. 279). Individuals who utilize their imagination see things other than they appear. Like a scientist, the artist perceives what is**,** but imagines what might be**,** and subsequently deploys their knowledge, technical skills, and sensibilities to attain what they have imagined (Eisner, 2002). Regarding the imaginative experience in the creation of art, Dewey stated:

> There is a conflict artists themselves undergo that is instructive as to the nature of imaginative experience…. One way of stating it concerns the opposition between inner and outer vision. There is a stage in which the inner vision seems much richer and finer than outer manifestation**.** It has a vast and enticing aura of implications that are lacking in the object of external vision….Then there comes a reaction; the matter of the inner vision seems wraith-like compared with the solidity and energy of the presented scene. The object is felt to say something succinctly and forcibly that the inner vision reports vaguely, in diffuse feeling rather than organically….But the inner vision is not cast out. It remains the organ by which the outer vision is controlled, and it takes on structure as the latter is absorbed within it. The interaction of the two modes of vision is imagination; as imagination takes form the work of art is born. (pp. 278-280)

According to Eisner (2002), a significant benefit of the arts is that they endorse and encourage an individual to use their imagination as a source of content. The arts provide the security of envisioning or creating a whimsy or distorted image without being viewed as disconnected from reality. The imaginative image often functions as a blueprint for the artist to reorganize their perception of the world. In addition, the arts provide an outlet to envision things differently from how they are typically envisioned. Lastly, through refining and using the sensibilities, the arts support inventive scholarship and create the gifts that the imaginative process produces.

The origins of creativity date back to early man's need to innovate to survive. Through the evolutionary process, motivators for innovation have become established into the fundamental brain mechanisms of humans. Artistic creativity, as well as

creativity in countless other domains is reliant on knowledge and semantic conceptual systems located in the neural pathways of the cortex (Zaidel, 2014). Based on these biological assumptions, Robinson (2011) contended creativity extends beyond the imaginative experience. Because imaginative experiences tend to be a private process of internal consciousness, the imaginative images may never be known to others. However, creativity does something with the image. Creativity for individuals does not occur in the abstract rather creativity occurs concretely in areas such as art, music, math, or any imaginable endeavor. A creative person actively produces something in a deliberate way. In essence, creativity is the application of one's imagination. Furthermore, through applying a creative idea, an innovation comes to fruition in the form of a new product.

In his book, *Art Mind and Brain: A Cognitive Approach to Creativity*, Gardner (1982) gave a synopsis of the psychologist Howard Gruber's work regarding the study of creativity. Gardner summarized,

> A creative person seeks to relate various facts and theories scattered across his area of concern in order to come up with a coherent and comprehensive synthesis. Moreover, a creative individual typically spawns a network of enterprises – a complex of searches that engages his curiosity over long periods of time….In addition…the creative individual also pursues (or is pursued by) a number of dominant metaphors. These figures are images of wide scope, rich, and susceptible to considerable exploration, exposing the investigator to aspects of phenomena that might otherwise remain invisible to him. The creator is animated by a series of self-conscious problems and projects which he is determined to monitor regularly and to carry through to successful completion. The individual

> determines which skills he needs in order to achieve his purposes and works tirelessly to develop and perfect them. In the process he transforms himself until what might be difficult for other persons becomes second nature to him. He may also feel the need to discover new sets of peers who can educate him about what currently concerns him, and he needs the strength to abandon these collaborators (at least in a professional sense) when he moves on to a new area of concerns…. Despite the pleasure that individuals obtain from their work, they are typically embarked on a solitary voyage, where the chances of failure are high. To pursue this risky tack, they must be courageous and willing to deviate from the pack, to go off on their own, to face shame or even outright rejection. It requires a strong constitution to go it alone in creative matters, and most innovative people at times experience a strong need for personal, communal, or religious support. (pp. 354-355)

In his book, *Out of Our Minds: Learning to be Creative*, Robinson (2011) defined "creativity as the process of having original ideas that have value" (p.151). The three key terms associated with creativity are *process*, *original*, and *value*. Robinson stated "creativity moves through different phases. Trying to produce a finished version in one move is usually impossible. Not understanding this can make people think that they are not creative at all" (p. 158). As a result, Robinson emphasized that creativity is an iterative process of trial and error. It entails interwoven relationships between the various elements and phases that are generative and evaluative in nature. In all creative processes, the boundaries are being extended to evolve existing knowledge and skills, and new possibilities are being explored to meet the demands of the work. The early stages

of creativity involve tinkering with an idea or improvising around a theme. The creative process originates with the dawn of a half-formed thought centered around an original idea or solution to a problem. During the early stages of the process, a myriad of ideas and starting points are possible. Creativity does not always begin with a blank slate and often requires working within a prescribed framework. The framework guides the creative and aesthetic achievement to attain distinct properties and new perceptions.

Robinson (2011) contended that creativity always requires doing something; therefore, it necessitates the application of specific media. The media can be either physical, sensory, or cognitive in form. Examples of physical media include wood or clay. Sensory media utilizes sound, voice, light, or dance. Whereas cognitive media consist of mathematical symbols or words. All three forms of media contain an identifiable link among the concepts developed and the media through which they are expressed. Creativity extends beyond the generation of ideas. It also involves making judgments by exploring, elaborating, refining, and testing to failure the original ideas. In addition, it may also involve dismissing the initial ideas in exchange for more sophisticated ones that reveal themselves during the process. The evaluation of these ideas requires critical thinking that can occur individually or within a group, and involves making judgments instantly or over an extended period of testing. Lastly, the quality of the creative work is related to the ability to shift between generative and evaluative thought. Balancing the synergy between generative and evaluative thinking is a crucial factor in the development of creativity. Robinson maintained

> Although there are always points where criticism is necessary, generative thinking has to be given time to flower. At the right time and in the right way, critical appraisal is essential. At the wrong point, it can kill an emerging idea. (p. 155)

Robinson (2011) asserted creative insights transpire through a variety of uncommon connections. Making insightful connections depends on the ability to identify analogies between previously unrelated ideas; combine ideas in unforeseen ways; link the ideas to questions or problems with which they are not ordinarily related; and breach the parameters between multiple points of reference. Dewey's (1934) thoughts relative to the process of imagination support Robinson's argument regarding the necessary actions to make insightful connections. Dewey stated:

> It **(imagination)** is a way of seeing and feeling things as they compose an integral whole. It is the large and generous blending of interests at the point where the mind comes in contact with the world. When old and familiar things are made new in experience, there is imagination. When the new is created the far and strange become the most natural inevitable things in the world. (p. 278)

Individuals have the potential to develop skills and abilities in various disciplines, professions, and vocations. Personal creativity usually occurs when an individual's affinity for certain materials and their talents merge with their passions. The discovery of the right medium is often a pivotal time for an individual engaged in the creative process; however, to be creative an individual must have control of the medium. To request someone to be creative without them possessing the technical skills is shortsighted. An individual's creative ambitions will exceed their abilities if their perceptual and technical skills are not sufficient to work in the desired. If an individual is unable to view things

differently and cannot effectively utilize the medium to illustrate what the mind has envisioned the creative possibilities remain limited.

Overall, creative development coincides with the level of ability to use the tools and materials within the medium; however, the ability to speculate, explore, and imagine remain critical to the creative process (Robinson, 2011). Dewey (1934) argued, "No amount of technical skill and craftsmanship can take the place of vital interest; 'inspiration' without it is fleeting and futile" (p. 277). The challenge to achieve creative development is to identify the balance between acquiring the requisite skills and activating the imagination to investigate new possibilities (Robinson).

Robinson (2011) proceeded to make the distinction between general and personal creativity by noting behavior patterns and habits of mind can impede an individual form imagining novel solutions. Therefore, divergent and lateral thinking should be used to facilitate the release of conventional thought. With the utilization of divergent and lateral thinking, unrestricted associations can be made metaphorically or allegorically and by reshaping the problem to generate multiple solutions. Robinson stated:

> The questions we ask are often more important than the answers we search for. Every question leads to a line of inquiry. Change the question and whole new horizons may open up to us. The true value of generative idea is that it leads to new sorts of questions. (p. 162)

The techniques for divergent and lateral thinking help to organize the course of study to develop and analyze the best solutions to a problem. In addition, methods that extend beyond the use of an individual to organizations are seeking to generate ideas and possibilities because they produce the best answers to concepts and support the

usefulness of a variety of perspectives (Robinson, 2011). Robinson (2009) ardently supported the notion that there is a social dimension to creativity. "In practical terms, most creative processes benefit enormously from collaboration. The great scientific breakthroughs have almost always come through some form of fierce collaboration among people with common interests but with very different ways of thinking" (Robinson, 2009, p. 26). Moreover**,** creative people are influenced by their respective cultures and the ideas and accomplishments of other people. In summary, collaboration, diversity, and advancing upon the achievements of others are fundamental to the creative process (Robinson, 2009).

Robinson (2009) clarified misconceptions about creativity by expressing the belief that all people have creative capacities. Furthermore, creativity is not limited to a select few and is not only applicable to the arts. Rather, creativity is a function of all aspects of life. Lastly, creativity is a disciplined process that in conjunction with imagination and inspiration demands the utilization of skills, knowledge, and self-control.

Through the review of literature, the researcher has ascertained that the processes involved in the production of art are significant to the development of cognitive capabilities (Eisner, 2002). In addition, the use of imagination to create something conceivable is a significant cognitive function. Lastly, imagination and creativity are not exclusive to the artistic realm; rather, crossover to a variety of domains (Dewey, 1934; Eisner, 2002; Gardner, 1982; Robinson, 2009; Zaidel, 2014). For this study, these conclusions prompt the researcher to consider the role arts, imagination and creativity play in schools and school reform. To gain insight into this consideration the evolution of school reform in American public education was reviewed.

From the Progressive movement through discussing the role of education in a global market, the literature revealed a new type education is required to compete in today's world (Wagner, 2008). The increase of countries encouraging imagination necessitates the need for America to develop creative individuals with a vast array of abilities to preserve the practice of innovation. As a result, advocates argue for a curriculum that fosters and inspires creativity (Friedman, 2007; Friedman & Mandelbaum, 2011; Zhao, 2009). The evolution of school reform and the arguments supporting a curriculum that nurtures creativity provides the researcher foundational knowledge in the investigation of implementing a visual arts program in a standards-based environment.

## Educational Reform

Issues relating to curriculum, pedagogy, standards, measurement of achievement, and teacher accountability for student performance have been debated since the inception of American public education (Ravitch, 2000). During this time, citizens, business and political leaders have viewed education and the economy as an interdependent relationship. The assumptions that the investment in public education provides individuals a path to financial independence and yields a citizenry prepared for post-secondary education and the workforce continue to provide the impetus for educational reform. Historically, reformers have also tasked public schools to cure national ills. Social, economic and political issues relating to racial equality, substance abuse, poverty, global competiveness and lack of patriotism have generated changes in public education. Reforms addressing these national issues require public schools to prepare students in

managing these problems, and develop solutions within the nation's social and economic structures (Cuban, 2004).

Over the last two decades, the issues at the forefront of educational reform are the achievement gap within the American educational system and the *global* achievement gap. At its core, the achievement gap that NCLB sought to rectify was centered on the idea that the quality of education available to middle class students was not comparable to the education received by poor and minority students. Reforms were developed to close the disparity of achievement results through increased testing and greater accountability for student success. The global achievement gap is rooted in the premise that a new type of education is required to succeed in today's world. Ideally, the instruction and assessment throughout all American public schools need to be in alignment with the skills and knowledge that students need to possess as workers and citizens in the global marketplace (Wagner, 2008). The questions to address these gaps are not unique to what has been applied to address past educational issues. During the 20th century, questions relating to educational reform centered on the following:

1. What should students learn?
2. What is the purpose of schools?
3. What should schools aim to do (Ravitch, 2000)?

As the purpose of education is redefined to meet the demands of the 21st century and educational costs continue to escalate, the system of accountability becomes more transparent. The historical review of educational reform provides a context for understanding past policy decisions. This understanding is essential as current policy

makers and educators create a new landscape that addresses present issues as well as builds a foundation to make sound decisions in the future (Ravitch, 2000).

## Early 20th Century American Education

As the 19th century ended, America was transitioning from an agrarian to an industrial and urbanized society (Resnick, 2006). With this change, waves of immigrants sought economic opportunity in a burgeoning industrial society. Due to the absence of child labor laws, only half of America's youth were enrolled in school and only 6% of 17-year-olds earned a high school diploma. As compulsory attendance became the norm and enrollment figures swelled, the need to organize and educate vast amounts of non-English speaking students in a rapidly growing industrial economy triggered debate and significant changes in American public education (Gelbrich, 1999; Resnick, 2006).

Early in the century, education was primarily overseen by local school boards. Educational agencies at the state and federal levels were limited in numbers and power (Ravitch, 2000). The influence of industrialization enabled Frederick Taylor's theory of *scientific management* to be utilized in education. The study of economic efficiency created an opportunity for independent schools to merge for pooling their resources. Furthermore, the standardization of curriculum occurred, and oversight by the state and local governments began to emerge (Gelbrich, 1999). These changes were part of a larger political occurrence known as the Progressive movement. This movement sought to address socio-economic and political issues that developed because of the rapid growth of industrialization. These issues ranged from government corruption, regulation of monopolies, working and living conditions of the urban poor, the assimilating of immigrants and an array of other concerns. From an educational perspective, the primary

purpose of Progressive reform was to utilize schools as a conduit for social change (Ravitch, 2000).

As the expectation for the public-school system to serve as a vehicle for social reform increased, educational research became recognized as a legitimate field of study (Johanningmeier, 2006). Reports published by blue ribbon panels studied the future direction of education and scientifically examined the social and educational issues for creating policy (Adams & Ginsberg, 2002; Johanningmeier, 2006; Ravitch, 2000). The first of these reports, *Report of the Committee of Ten*, was published in 1892. Under the direction of the National Education Association (NEA), the Committee of Ten was charged to coordinate curriculum and admission requirements between high schools and colleges (Adams & Ginsberg, 2002; Ravitch 2000). The committee's findings asserted that the purpose of high schools was to equip students with the knowledge and skills to address any endeavor in life and not exclusively for college entrance. They advocated for a liberal arts curriculum steeped in the humanities, science and math that would help all students to develop as thinkers and citizens (Ravitch, 2000). "As the progressive education movement came to prominence, the Committee of Ten's report became an object of scorn. Progressive educators considered it a misguided effort to impose a college preparatory curriculum on everyone" (Ravitch, 2000, p. 48). Despite the criticism, high schools remained committed to a liberal education; however, a variety of courses continued to be offered in vocational and business training, art, music and physical education for students not attending college. Overall, a consensus prevailed among teachers and parents that all students who had access to a curriculum that imparted knowledge and developed the thought process was an asset to society (Ravitch, 2000).

Twenty-five years after the *Report of the Committee of Ten,* reformers lobbied for a curriculum that was congruent with the needs of industry and would assist in developing the skills needed to function in the workforce, especially for poor immigrant and racial minority students (Feldmann, 2005; Ravitch, 2000). In 1918, the NEA's Commission on the Reorganization of Secondary Education wrote the *Cardinal Principles of Secondary Education*. The report was a point of demarcation from the emphasis of traditional subjects to personal skills. Seven objectives were identified, and although the traditional subjects remained in the curriculum, the emphasis was placed on the practical application of skills (Adams & Ginsberg, 2002; Feldmann, 2005). These seven objectives related to one's personal health and wellness, literacy and numeracy, household arts, vocational and civic education, recreation and leisure, and ethics (Schugurensky, 2005). In addition to these objectives, recommendations that materialized from the report included compulsory schooling, the creation of junior and senior high schools, and the concept of a comprehensive high school that provided a core curriculum with vocational and elective courses (Adams & Ginsberg, 2002).

In general, the Progressive platform maintained the traditional liberal arts curriculum was misaligned to the existing economic and social conditions. They brought to light the administrative inefficiencies, local corruption in school governance, and inadequacies of instruction. Within this platform, two schools of thought emerged to address these issues. The administrative progressives were comprised of university academics and superintendents, and utilized Taylor's model of scientific management in the administration, governance and instructional methods within schools. They are credited for the organization of junior and senior high schools, the integration of

academic and vocational curricula, the use of aptitude tests for homogeneous grouping, and the practice of summative assessments to monitor student achievement (Cuban, 2004). The second group of pedagogical progressives operated on the tenants of John Dewey. Dewey's focus was on teaching and learning and the application of learning to real-world scenarios within a child's life. Emphasis on student interest and interdisciplinary projects to develop a child's intellectual, social, emotional and physical capabilities supported their concepts of the *whole child* and *learning by doing*. (Cuban, 2004; Ravitch, 2000). Dewey's writings inspired, validated and gave direction to Progressive reformers who advocated for an education system that was child-centered, emphasized learning by doing, infused vocational training, and remained steadfast to the idea that purpose of schools was to reform society (Ravitch, 2000).

## 20th Century Educational Reform

As the industrial process became more sophisticated through the increase of standardization and mechanization, public education was challenged to provide a better educated citizenry. The industrial capacity and capability generated during and after World War II created an unprecedented amount of material wealth for Americans. Mass production had proven to raise the standard of living and baby boomers raised during this era matriculated to an educational system based on the Industrial Age model. By 1950 over half of the population had earned a high school diploma (Houle & Cobb, 2011; Resnick, 2006). As the century progressed, public schools began to shift their attention to preparing students for post-secondary education, and providing equal access to educational programs for racial minorities and students with disabilities (Resnick, 2006).

In the early 1950s, ten million students attended public schools across America. Approximately three and a half million students attended racially segregated schools in 17 states. The United States Supreme Court's decision in 1896 regarding *Plessy v. Ferguson* constitutionally legalized racially segregated facilities that resulted in an inherent educational disadvantage for those students in racially segregated schools for nearly 60 years (Ravitch, 2000). In 1954, the Supreme Court's ruling in *Brown v. Board of Education* opined the idea that separate but equal is inherently unequal. This landmark ruling began the closing of the achievement gap for racial minorities (Resnick, 2006).

In 1957, the Soviet Union's launch of the Sputnik satellite initiated the space race. The launch drew the ire of critics contending public education failed in keeping pace with the nation's Cold War nemesis. Sputnik's launch resulted in the 1958 enactment of the National Defense Education Act (NDEA) which significantly enhanced the federal government's role in education. (Resnick, 2006; Zhao, 2009).

> To help ensure that highly trained individuals would be available to help America compete with the Soviet Union in scientific and technical fields, the NDEA included support for loans to college students, the improvement of science, mathematics, and foreign language instruction in elementary and secondary schools, graduate fellowships, foreign language and area studies, and vocational-technical training. (U.S. Department of Education, 2012, p. 1)

Following the Civil Rights Act of 1964, President Lyndon Johnson moved to respond to the war on poverty by having congress enact the Elementary and Secondary Education Act (ESEA). According to the U. S. Department of Education (n.d.),

> ESEA offered new grants to districts serving low-income students, federal grants for text and library books, it created special education centers, and created scholarships for low-income college students. Additionally, the law provided federal grants to state educational agencies to improve the quality of elementary and secondary education. (History of ESEA section, para. 2)

ESEA intended to establish equity within the American educational system through the Title I fund source (Schugurensky, 2001). This legislation increased the federal and state governments' oversight in the improvement of schools. Both public and private entities were funded based on the number of economically disadvantaged students enrolled in their schools (Jennings, 2015; Ravitch, 2013).

The framework of ESEA provided a template for future legislation that intended to assist students (Jennings, 2015). In 1975, the Education for All Handicapped Children Act established the protection of rights for students with a disability. Currently known as Individuals with Disabilities Education Improvement Act (IDEIA), it ensures early interventions and special education services, and a free and appropriate public education in the least restrictive environment for students with disabilities ages 3 through 21 (DeWitt, 2011).

In 1983, The National Commission on Excellence in Education published *A Nation at Risk: The Imperative for Educational Reform*. The report declared the nation was in jeopardy in the present and future due to the erosion of mediocrity within the American educational system. It exclaimed the country was being outperformed economically and educationally by Asian and European competitors. The report likened

the predicament to an act of war (National Commission on Excellence in Education, 1983).

> To support the premise that America was at risk, because of its poor education system, the commission listed some 13 "indicators of the risk," including American students' poor performances on international tests; the country's high rates of functional literacy; its declining test scores on the SAT and other standardized tests; and the increasing need for remediation courses in math, science, and English for college students and employees. (Zhao, 2009, p. 27)

The long-lasting implications resulted in establishing a climate for future educational reform, and enhanced the federal government's role in the control of the American school system through more stringent teacher accountability, and the implementation of standards. It brought to the forefront that America was competing in a global market; therefore, providing the venue for business leaders to advocate for educational reform (Zhao, 2009).

## Standards Movement

The findings published in *A Nation at Risk*, coupled with the impact of globalization on the economy, brought a sense of urgency to America. While the forces of automation and outsourcing diminished jobs for unskilled workers and disillusioned employers with the costs associated with training entry-level workers, legislators and business leaders clamored for higher standards in education. This sentiment was also supported by Albert Shanker the president of the American Federation of Teachers. At a 1989, national governors' summit in education, Shanker fervently advocated for a national system of standards and high stakes assessments (Ravitch, 2000). The results of

the summit produced six national goals to be achieved by the year 2000. Momentum of the summit carried into the Clinton administration and in 1994, President Clinton enacted Goals 2000: Education Act. This legislation established national educational goals and provided resources to states for the development of academic standards and assessments. While states were implementing academic standards and assessments, another educational summit consisting of the nation's leading chief executive officers and governors took place in 1996. The results from the summit concluded that the implementation of standards and assessments were crucial to solving the ills of the educational system (Ravitch, 2000; Zhao, 2009). The standards movement built momentum and gained credibility as Shanker championed high academic and behavioral standards in American schools. In addition, the National Assessment of Education Progress (NAEP), a federally funded testing program attuned to academic achievement, publicly reiterated the need to improve achievement in the core academic subjects. Lastly, results from public opinion surveys consistently affirmed that the American public equated high academic and behavior standards to increased achievement (Ravitch, 2000).

## No Child Left Behind

The standards movement of the 1990s culminated in the reauthorization of the ESEA of 1965. The reauthorization known as the NCLB Act of 2001 was designed to increase student achievement and tighten the federal government's role in education ("Editorial Projects in Education Research Center", 2011). Upon the reauthorization, states were required to implement rigorous curriculum standards in reading and math (Zhao, 2009). At the local level, public school districts were mandated to implement

annual testing, meet academic progress targets, release report cards that disaggregated testing data, and required teachers to be highly qualified ("Editorial Projects in Education Research Center", 2011).

Students in grades three through eight were required to be tested annually in reading and math. Test results were separated into subgroups denoted by race, ethnicity, economically disadvantaged status, special education and English language learners (Ravitch, 2013). Schools were required to meet benchmarks for each subgroup through a formula detailed in the law known as adequate yearly progress (AYP). Testing results relating to the overall performance of a school district, individual schools and subgroups were released to the public. Failure to consistently meet AYP requirements resulted in varying levels of corrective action. The law also required teachers to be certified in their content areas through a process referred to as highly qualified. The most controversial aspect relating to AYP status was that schools had to reach 100% proficient levels by 2014 ("Editorial Projects in Education Research Center", 2011). NCLB was scheduled to be reauthorized in 2007. As recent as July 2015, the reauthorization remained stalled in congress.

The genesis of NCLB was rooted in *A Nation at Risk.* Published in 1983 by the Reagan administration, the report raised significant concerns regarding the quality of American public education (Graham, 2013). The bipartisan idea of accountability, through standardized testing in reading and math, and the premise that all children can learn, embodied the principles of the report and the standards movement (Cuban, 2004; Zhao, 2009). Critics contend NCLB conveys to the public that reading and math are the most valued subjects, and carve the best path for economic success. The heightening of

the federal government's oversight of public education, through primarily testing two content areas, narrows the curricular offerings in other subjects and usurps local autonomy in establishing the parameters of a quality education that best meet the needs of the community. (Meier & Wood, 2004; Ravitch, 2013; Zhao, 2009). In addition, NCLB placed the teacher in the dilemma of forfeiting meaningful learning while overemphasizing increased test scores (Meier & Wood, 2004). The implementation of NCLB spurred a new industry that resulted in increased educational costs. The law designated federal funds for accessing companies that specialized in tutoring, data analysis, and strategies to meet AYP. States and school districts concentrated these appropriations on test preparation and materials to increase test scores. Lastly, through federal funding and tax incentives, NCLB endorsed charter schools as a viable solution to low-performing public schools (Ravitch, 2013). This endorsement was construed as an effort to privatize education for profit over meeting the needs of students (Meier & Wood, 2004; Ravitch, 2013). As an extension of ESEA, NCLB intended to close the achievement gap for low-economic and racial minority students. Supporters of the law maintained that accountability and improvement in schools would occur through the increase of standardized tests (Wagner, 2008).

## Race to the Top

In response to the 2008 financial crisis, Congress passed the American Recovery and Investment Act. The economic stimulus package earmarked a portion of the funds to state and local education agencies for maintaining fiscal stability (Ravitch, 2013). The Obama administration allocated $4.3 billion of these funds to launch the Race to the Top initiative (Strauss, 2013).

> The competitive grant program was designed to spur state-level education innovation to boost student achievement, close achievement gaps, and prepare students for college and careers. … RTT encourages states to develop and implement key reform strategies around four core components:
>
> 1. Adopting rigorous college- and career-ready standards and assessments
> 2. Recruiting, evaluating, and retaining highly effective teachers and principals
> 3. Building data systems that measure student success and inform teaching and learning
> 4. Turning around low-performing schools (Miller & Hannah, 2014, para. 1)

In return for RTT funds, states had to agree to implement the Common Core State Standards, expand charter schools, restructure teacher evaluation systems by linking standardized test scores to the teacher evaluation process, and potentially close schools that performed poorly (Ravitch, 2013; Ravitch, 2011b; Strauss, 2013). RTT extended beyond NCLB by using standardized test scores as a component to measure teacher quality. It also marked a change from past Democratic administrations' practices in the awarding of aid. Traditionally, Democrats adhered to formula grants based on the enrollment of low-income students. RTT initiative deviated from this philosophy in that financial awards were now based on a competitive process (Ravitch, 2013).

The federal accountability movement detailed in NCLB and RTT defined educational reform in the 21st century. Both emphasized curriculum standards and

endorse standardized testing, accountability and choice. Standardized testing data and value-added measures play a significant role in the evaluation of public education (Fritzberg, n.d.; Ravitch, 2013).

## Every Student Succeeds Act

NCLB accountability measures sought to address the achievement gap and enhance the quality of education for all students. Over time, stakeholders recognized the need to develop legislation that shifted the oversight of academic achievement accountability from the federal to state level of government. The result was the December 2015 signing of Every Student Succeeds Act (ESSA). Beginning in the 2017-2018 school year, ESSA provided states a greater role in the implementation of educational policy. In a continued effort to the close the achievement gap ESSA enables states to develop their own accountability plans to ensure quality instruction and rigorous outcomes (U.S. Department of Education, n.d.). Furthermore, ESSA includes several components pertaining to measurable goals, prescribed indicators of academic success, and criteria for identifying and providing interventions for low performing schools. In addition, requirements for testing, academic standards, and reporting procedures for English-language learners and special education students are included. Moreover, ESSA outlined parameters for spending revenues obtained from block grants and Title I and Tile II funding sources. Lastly, incentive programs to enhance teacher quality in areas such as literacy and STEM are included in the law (Klein, 2016).

The primary intent of ESSA is to prepare students for college and career readiness (U.S. Department of Education, n.d.). To achieve this goal, schools will be held accountable by four academic indicators. These indicators include testing, English

Language proficiency, and graduation rates. The fourth indicator can include but is not limited to areas such as postsecondary readiness and school safety (Klein, 2016).

## Policy Flaws

Cuban (2004) maintained that the reforms outlined in NCLB have imposed the attitude that a college preparatory curriculum laden in the core subjects of English, math and science is the best way to prepare students for their futures. This attitude, in conjunction with the use of standardized summative assessments to evaluate learning in these curricular areas, reinforces the Industrial Age's hierarchy of subjects. As a result, the emphasis of assessing core subjects as a way to gauge learning marginalizes other disciplines and various types of intelligences. Policymakers have assumed that a national emphasis in reading and math will better equip students for a competitive world (Robinson, 2009). According to Cuban (2004), this political platform has failed because complying with the educational reforms of this era supersedes the efforts to change and improve instruction. The constant turnover of elected officials and fiscal constraints has led to the symbolic compliance of federal mandates at the state and local levels. Placing the responsibility of ensuring quality teaching and learning in the hands of federal and state policymakers has not come to fruition. The inability to assure the quality of teaching and learning is due to the failure of the multiple levels of government to coordinate with educators and the business community regarding curriculum and instruction and the administration of schools. Hence, the quality of teaching and learning is never addressed.

In summary, an educational system that exclusively focuses on the preparation and results of standardized tests has the potential to hinder the students and country it

serves (Zhao, 2009). "The tests that policy makers continue to use as an indication of educational progress do not measure any of the skills that matter most today" (Wagner, 2012, p. xv). Through quantifying the quality of education, comparisons can be made among other school districts, states, and countries. These comparisons can be beneficial in assessing the current conditions and effectiveness of the system; however, they can be misleading and hazardous. The over-analysis can foster a catch-up mentality as opposed to be a leader in the development of educational initiatives conducive to a global market (Houle & Cobb, 2011; Zhao, 2009).

## Future-Focused Policy

Educational reform is not exclusive to American public education. Countries throughout the world are continuously in the process of evaluating and attempting to improve their educational systems. Economic conditions and the quest to maintain cultural identity are two main reasons for educational reform. The task of educating a citizenry with the requisite knowledge and skills needed to flourish economically in a rapidly changing world are at the forefront of reform. In addition, countries want to reap the wealth provided by globalization; but, their reluctance to relinquish their way of living is inherent to the educational reform process (Robinson, 2009). Zhao (2009) asserts that America needs to expand its traditional educational traits of valuing individual talents and diversity, providing an extensive curriculum aimed at educating the whole child and supporting a decentralized system to address current global economic conditions. Furthermore, educational reform should focus on the future by redefining the meaning of success, customizing education to meet the needs of the student and managing schools as a global enterprise.

The redefining of success creates the opportunity to recognize the importance of other subjects, abilities, skills and talents in the same regard as reading and math. It also reveals the need to redefine how success is measured. The notion shared by the renowned physicist Albert Einstein (as cited in Zhao, 2009) was that not all that is important is measurable, just as not all that can be measured is important relates to the idea that the many skills, abilities and knowledge that are taught in schools cannot be readily evaluated on a standardized exam. Other types of assessments that measure multiple forms of student learning need to be implemented throughout education. The use of standardized exams to measure the quality of education does not encompass the multitude of factors that influence learning. A more comprehensive system of evaluating a school's success would be centered on input indicators that measure educational resources and opportunities. These indicators are: physical environment, facilities, highly qualified staff, curriculum development, leadership, innovation, and educational opportunities (Zhao, 2009).

Educational reform continues to evolve according to economic conditions and cultural identity. Friedman and Mandelbaum (2011) stated,

> The world increasingly will be divided between high-imagination-enabling countries, which encourage and enable the imagination and extras of their people, and low-imagination-enabling countries, which suppress or simply fail to develop their peoples' creative capacities and abilities to spark new ideas, start up new industries, and nurture their own "extra." … The big question for American educators, though, is how one actually goes about teaching "extra." The three R's – reading, writing and arithmetic – we know how to teach and test. Teaching

> "extra," though, requires both teaching and inspiring creativity. There is no one way to do this and the different attempts to teach creativity and "extra" are among the most exciting experiments in education today. (p. 138)

To transform education in this manner, the desire to implement quick-fix reforms must be supplanted by visionary leadership and the collective will to eliminate the status quo (Houle & Cobb, 2011).

## Global Achievement Gap

According to Wagner (2008), "the global achievement gap, … is the gap between what even our best suburban, urban, and rural public schools are teaching and testing versus what all students will need to succeed as learners, workers, and citizens in today's global knowledge economy" (p. 8). The infusion of workers worldwide, the rapid advancement of technology and the forecasting of new business innovations make it difficult to discern the exact knowledge and skills needed to address the global achievement gap (Zhao, 2009). As a result, American education needs to extend beyond the emphasis of literacy and numeracy by teaching and motivating students to innovate, adapt and add value to their skill sets. Furthermore, the information technology revolution requires students to hone their analytical and creative skills to a level of competency previously not required in the workplace. These challenges are formidable and require a collective effort and sacrifice as a nation to adopt the appropriate policies to succeed (Friedman & Mandelbaum, 2011). The role of the educational system is to nurture diverse abilities and provide a curriculum that gives students the opportunity to enhance their talents (Zhao, 2009).

Robinson (2009) contended the current Industrial Age model is becoming obsolete by the demands of the 21st century. As work has become increasingly outsourced, automated and digitized at a lower cost, it becomes more imperative to develop aptitudes that cannot be done cheaper overseas or reduced to an algorithm (Pink, 2005). "America needs a citizenry of creative individuals with a wide range of talents to sustain its tradition of innovation. Americans need talents and abilities that are not available at a lower price elsewhere on earth" (Zhao, 2009, p. xi).

> This means that no matter how much education or how many credentials we have; we are continually challenged to improve our performance as the world changes around us. … we must be on a permanent quest to achieve the potential that we have within us to respond successfully to unanticipated challenges. (Hagel, Brown, & Davison, 2010, p. 126)

The global achievement gap is addressed through having an educated citizenry that can function globally by developing the ability to empathize and interact with other cultures, and adapt to change. The dilemma for policymakers and educators is to decide if educational reform should foster a new set of talents that are creative and entrepreneurial in nature or to develop students as competent test takers on reading and math exams (Zhao, 2009).

Wagner (2012) stated, "Increasingly in the 21st century, what you know is far less important than what you can do with what you know. The interest in an ability to create new knowledge to solve new problems is the single most important skill that all students must master today" (p. 142). Mastery of these abilities requires the infusion of understanding the context of the learning process. Mastery requires the teacher to make

the instructional shift as being the primary conveyor of the content to developing the students into masters of context. Through teaching mastery of context, the teacher makes the content relevant to engage the students critically, creatively, and collaboratively (Houle & Cobb, 2011). Wagner (2012) stated "All successful innovators have mastered the ability to learn on their own 'in the moment' and then apply that knowledge in new ways" (p.142). Those who develop these capabilities have the greatest chance of providing the solutions and leadership needed to succeed individually and contribute to organizations and communities (Houle & Cobb, 2011).

## Education and the Economy

The characteristics of work have become increasingly complex and collaborative. Cognitive abilities, coupled with social skills and technology competencies, are required and become enhanced as employers move from one career to the next. (Tapscott, 1998; Tapscott & Williams, 2006). The advancement of technology has enabled capitalists and consumers to find the best value for goods and services. Technological advancement has created a leveling of prices and an increase of wages for workers in developing nations (Brynjolfsson & McAfee, 2012). Services and products ranging from market research, back-office support, and contract manufacturing are accessible in the global market place, and can be managed and distributed via the World Wide Web. Small companies can experience exponential growth with well deigned business plans that open avenues to harness world-class capabilities (Tapscott & Williams, 2006). In our current economy, it is no longer assumed that industry will support the economic vitality of America's communities. Many jobs have been eliminated or replaced due to the outsourcing of work to Asia or through automation (Houle & Cobb, 2011; Pink, 2005). As a result,

many Americans have been faced to compete against the low wage, high skilled worker (Friedman & Mandelbaum, 2011). To stay relevant as a nation, a company or an individual, a new set of capabilities are required that utilize knowledge and skill to innovate and create value (Tapscott & Williams, 2006). According to Wagner (2012), "We have to become the country that produces more ideas to solve more different kinds of problems. … We can no longer create wealth by out-manufacturing or out-consuming the rest of the world. … We must out-innovate our economic competitors" (pp. 2-3). According to Mark Rosenberg, the president of Florida International University, "it is imperative that we become much better in educating students not just to take good jobs but to create good jobs. The countries that educate and enable their workers to do that will surely thrive the most" (as cited in Friedman & Mandelbaum, 2011 p. 138).

Pink contended the powerful economic forces of abundance, Asia and automation diminish the capabilities associated with the of 20th century's knowledge worker (Artsedge: The Kennedy Center Arts Education Network, 2008; Pink, 2005). The ability to think logically, sequentially, analytically and swiftly were staples of the educational system and were considered gateways to higher education and economic success. The capabilities associated with the left hemisphere of the brain remain important; however, from an economic perspective are no longer sufficient. The aptitudes associated with the right hemisphere of the brain such as artistry, inventiveness, empathy, and big picture thinking have become the predictors of economic success in the Conceptual Age.

Pink stated that the first economic force that has driven this monumental shift is the increase of material abundance throughout the world (Artsedge: The Kennedy Center Arts Education Network, 2008). Abundance is perpetuated by the transition of luxury

items becoming commonplace in the homes of Americans. Simply defined, luxury items are when the amount of the product is less than the number of users. However, in America, many products once considered luxury items now outnumber the total population. There are many examples to support the occurrence of the economic force of abundance in America. For instance, there are more automobiles than there are licensed drivers. The self-storage industry is a multi-billion dollar a year industry which is bigger than the motion picture business. From 1990 to 2008 the number of cell phones in American households grew over 80% (Pink, 2008).

Pink (2008) explained that there are two economic strategies to creating abundance. The first is an aesthetic strategy that an artist performs by producing a product that society did not know it was missing. An artist does this by creating a painting or writing a song that captures the appeal of people. In addition, businesses seek to employ the aesthetic strategy of abundance by creating products that would appeal to consumers prior to being invented. An example of this would be the development of the iPhone. Creating abundance with the aesthetic strategy is difficult to do on a consistent basis. An alternative strategy would be to utilize an accessible functional device and differentiate the product by adding aesthetics, design, meaning, and story. In the current economy, the most mundane utilitarian products can become objects of desire by differentiating with the right brain capabilities. In summary, the economic force of abundance significantly impacts the economy when peoples' functional needs are met and they are searching for greater significance in a product.

The second economic force of Asia is impacting the economy by capturing the global market of routine work. Pink (2008) defined routine work as any work that can be

reduced to a series of steps such as a formula or script. Routine work is leaving America and being performed by the lowest cost provider. As the second largest global economy, and as of 2010 the world's largest English speaking country, India possesses a significant amount of people who are well educated and industrious. These factors, in conjunction with communication technology such as email and video conferencing capabilities, open the door for middle class English speaking people to communicate with North Americans for free. Pink stated that the economic force of abundance is sending routine work to India and other regions of Asia to the cheapest cost provider (Artsedge: The Kennedy Center Arts Education Network, 2008). Many jobs in the fields of law, medicine, accounting, financial analysis, architecture, and engineering that were once considered untouchable are now being outsourced to Asia or replaced by software (Pink, 2005, 2008).

Just as machines replaced muscle power in a previous era, the L-Directed abilities are being supplanted by software this century. The economic force of automation has impacted white collar work by completing routine tasks more accurately, efficiently and economically. To overcome the economic force of Asia, American workers will have to develop a new set of skills to compete with international workers who work for less money. These skills will require American workers to forge relationships, provide solutions generated for a novel idea, and to think holistically (Pink, 2005).

Robinson noted the emphasis of right-brain thinking skills in public education requires serious divergent thinking to create a paradigm shift (TED Talk, 2010). "While detailed knowledge of a single area once guaranteed success, today the top rewards go to those who can operate with equal aplomb in starkly different realms" (Pink, 2005, p.

134). Pink further contended the ability to cross over into other disciplines and possess multiple areas of expertise fosters creativity and protects one's work from being automated or outsourced. The divergent thinking must fuel the need to develop creativity within our students. Robinson (TED Talk, 2010) maintained the development of creative skills requires students to see more than one answer and think laterally.

Perhaps the greatest lateral thinker, Leonardo da Vinci, was a skilled artist, scientist and inventor. His mastery of different fields of study enabled him to develop the skills and knowledge to connect the intellectual dots for the next creative breakthrough (Friedman, 2007). In his book, *The World is Flat*, Friedman (2007) contended that math and science are critical disciplines but are not sufficient in the innovation of new products and services. He argued,

> In our justifiable desire to leave no child behind, we need to make sure that we don't leave art, music, theater and literature classes behind as well. It would undermine a critical source of our economic strength and our ability to create new middle-class jobs. (Friedman, 2007, p. 318)

Friedman (2007) described those people whose jobs cannot be outsourced, digitized or automated as untouchable. Those students who become versatilists by applying skills in a variety of contexts, develop new competencies as well as build relationships and assume new roles will have a greater chance of being untouchable.

Friedman and Mandelbaum (2011) further developed the concept of untouchable by defining the components of a non-routine high-skilled job.

> A non-routine job is one whose function cannot be reduced to an algorithm that can be programmed into a computer or robot, or easily digitized and outsourced

> abroad. These jobs involve critical thinking and reasoning, abstract analytical skills, imagination, judgment, and creativity. They require the ability to read a situation, to extrapolate from it, and to create something new. (p. 75)

Friedman and Mandelbaum (2011) argued for a high school education that prepares students in these skills. In addition, Friedman and Mandelbaum noted that "education should focus on the whole person and aim to produce better citizens, not just better test takers" (p. 131). Friedman and Mandelbaum did not dismiss the significance of the importance of teaching reading, writing and mathematics; however, they emphasized that,

> If in our rush to get everyone a proper grounding in math and science, we throw out or shrink art, music, journalism, choir, band, film, physical education, dance and calligraphy as many public schools are being forced to do, we lose the very things that encourage collaboration and inspire creativity. (p. 141)

As outsourcing, automation and digitization increase in the age of abundance the issue to how value is added to the educational system becomes a significant leadership challenge. The challenge is escalated by the fact that the diminishing role of the related arts in education is inverse to what the leading authors and future focused thinkers are telling us about what is needed to be competitive in a global economy. "The problems in today's world are simply too complex to be solved using only the intellectual tools of a single academic discipline" (Wagner, 2012, p. 173). Wagner noted that further compounding the issue is the tests used to measure educational progress do not adequately assess the skills needed in today's world. The skills of thinking critically and creatively, being able to work collaboratively and communicate effectively are

overridden by the pursuit to score well on tests. In *Linchpin: Are You Indispensable?* Godin (2010) contended that the people who are connected and mature, exhibit passion and energy, and can manage multiple priorities will have the competitive advantage in the marketplace.

## Pink's Six Senses for the Conceptual Age

Pink (2005) has identified six aptitudes that are difficult to outsource and automate, and deliver significance along with meaning. Mastering these right-brain capabilities and supplementing them with left-brain reasoning can result in a "whole new mind" (Pink, 2005, p. 2). These R-Directed abilities have always been fundamental aspects of human intelligence and are increasingly becoming critical in acquiring professional achievement and personal satisfaction in the 21st century. Pink asserted the L-Directed abilities remain important; however, the high concept and high touch aptitudes have become first among equals throughout the global economy and society. High concept requires the aptitudes to artistically create a visually appealing and emotionally stirring product. In addition, it includes the ability to relay a compelling story and recognize complex patterns for the purpose of combining dissimilar concepts to create an original product. High touch requires the aptitude of empathy to relate to the perspectives and emotions of others.

Pink (2005) referred to these six aptitudes as *senses* and identified them as Design, Story, Symphony, Empathy, Play, and Meaning. Design has become a fundamental business literacy and is defined as "utility enhanced by significance" (Pink, 2005, p. 70). In the age of abundance, the aptitude of Design is used to differentiate products and services beyond their functional use for establishing new markets. The

differentiating of products and services occurs through adding aesthetic appeal with functionality (Pink, 2005). In addition, many problems in society can be resolved through applying the procedures of design. As a result, it becomes important to equip people with an understanding of how design decisions impact society. Through developing a sensibility of design, problems can be solved, and new innovations can be created that profoundly change society (Artsedge: The Kennedy Center Arts Education Network, 2008; Pink, 2005; 2008).

With the instantaneous access to facts and information, the ability to use the power of the narrative is a high concept and high touch aptitude of the Conceptual Age. The aptitude of Story is the ability to conceptualize facts and deliver them with an emotional impact. Entrepreneurs and businesses not only use Story to differentiate goods and services in a saturated market, but to convey analytical knowledge throughout an organization (Pink, 2005). According to World Bank executive Steve Denning, "storytelling … enables us to imagine new perspectives and new worlds. … Abstract analysis is easier to understand when seen through the lens of a well-chosen story" (as cited in Pink, 2005, p. 108). The sense of Story has also crossed over into the field of medicine. Narrative medicine assists a physician in evaluating a patient's symptoms by placing the symptoms in the context of the patient's life. Along with the analytical abilities associated in treating a patient, the aptitude of Story enables the physician to relate and interpret a person's condition. Physicians who can think both analytically and empathically use their whole mind to treat the patient. The aptitude of Story provides a level of understanding not provided by L-Directed thinking. In a global and abundant

world, context enriched with emotion enhances the abilities of self-understanding, persuasion and communication (Pink, 2005).

Pink (2008) argued that Symphony is the most significant aptitude in the differentiation of goods and services. "Symphony is the capacity to synthesize rather than to analyze; to see relationships between seemingly unrelated fields; to detect broad patterns rather than to deliver specific answers; and to invent something new by combining elements nobody else thought to pair" (Pink, 2005, p. 130). Symphonic ability enables an individual to identify the trends and recognize patterns from a wealth of information for thinking and planning strategically. Symphonic thinkers develop expertise in multiple domains, can unite two disparate ideas to create something new, and think metaphorically. The ability to recognize complex patterns of relationships and seamlessly integrate them cannot be easily reduced to software or a low-wage overseas specialist (Pink, 2005; 2008).

The ability of individuals to envision themselves in another person's position and to recognize what that person is experiencing has enabled humans to advance through the evolutionary process (Artsedge: The Kennedy Center Arts Education Network, 2008; Pink, 2005). Pink (2005) simplified the aptitude of Empathy by noting that "it is the ability to stand in others' shoes, to see with their eyes, and to feel with their heart" (p. 159). The ability to understand another person's perspective fosters self-awareness and teamwork. Like Design, Empathy is an aptitude used by businesses to solve problems. Through understanding the needs of customers, businesses can alter and adapt their practices to enhance customer satisfaction. Empathy is inextricably related to the aptitude of Design, Symphony, and Story. Designers consider the perspectives of others

to design goods and services that will most benefit the customer. Symphonic thinkers view the whole person and use context to build empathy for others. The use of Story augments empathetic listening and supplements the analysis of concrete facts and technology applications in the process of making decisions. Attorneys who can evaluate the thoughts of a jury to build a persuasive argument, or physicians who listen empathically to patients to assist in making an accurate diagnosis differentiate themselves from others in their profession (Pink, 2005).

The ability to understand the perspectives and emotions of others is difficult for even the most advanced computer systems to recognize. Automation and outsourcing can eliminate many jobs that can be reduced to a set of rules; however, understanding the nuances of human interaction remains in high demand. The aptitude of Empathy extends beyond an application for businesses in the 21st century. The increased understanding of human beings' emotions enhances communication and relationships and strengthens the moral fiber of society (Pink, 2005).

The aptitude of Play has become increasingly significant in the areas of work, business and personal wellness. Play is revealed in the domains of games, humor and joyfulness (Pink, 2005). Pink maintained that significant developments can be made in informal, spontaneous settings, which can manifest into high levels of production and personal satisfaction. Furthermore, the video gaming industry has significantly influenced the development of a whole-person through the practice of navigating diverse scenarios from multiple domains and cultures (as cited in DeGarmo & Turckes, 2009). Humor and joyfulness have become indicators for the level of emotional intelligence

needed to effectively manage a creative, productive and collaborative work environment (Pink, 2005).

The world of abundance has freed people economically; however, the increase of material wealth has not necessarily fulfilled the quest for significance and purpose throughout the world. As baby boomers head toward retirement and reevaluate their priorities in an era of escalating terrorism, rapid technological advances, and an increasing array of social ills, the search for meaning becomes important. The funneling of these factors with the increase of wealth, leisure time and longevity make the aptitude of Meaning more plausible to find. This occurrence provides the opportunity to significantly contribute to society; thus, bringing meaning to one's life (Pink, 2005).

## Summary

The review of literature suggests the role of arts education is to develop a child's creative and perceptive capacities relative to a work of art (Eisner, 2002). In addition, the discipline and integration of art expands educational opportunities that contribute to the enhancement of critical thinking skills and overall intellectual growth (Stewart, 1997). Moreover, scientific advancements have benefited the discipline of art dating back to the Middle Ages. These two domains continue to compliment and remain reliant on each other (Hirsch, 2014). Scientific study reveals that art is a highly cognitive process that enacts the brain to retrieve facts and theories across multiple realms to create a coherent and comprehensive artistic product (Gardner, 1982, 1992). Furthermore, art education enhances cognitive, creative, imaginative, and developmental capabilities by requiring students to problem solve, make aesthetic judgements and evaluate the artistic process (Eisner, 2002; *Learning and the Arts: Crossing Boundaries*, 2000;). Lastly, imaginative

and creative cognition is not exclusive to art; rather, cognitive processes relating to imagination and creativity extend into an array of other domains (Dewey, 1934; Eisner, 2002; Gardner, 1982; Robinson, 2009; Zaidel, 2014).

Historically, public education has carried the responsibility of solving the nation's socio-economic problems (Cuban, 2004). Educational reform has sought to close the achievement gap and establish equity in education for poor and racial minority students through the ESEA of 1965 and NCLB Act of 2001. Critics contend NCLB does not adequately assess the aptitudes that matter most in today's economy (Wagner, 2012). Skills that foster innovation and creativity, and are artistic in nature, best prepare students to succeed in the new economy (Pink, 2005; Tapscott & Williams, 2006). Through customizing learning activities and developing a comprehensive arts program, students can develop the creative and empathic skills needed for personal and economic success ("Los Angeles County Arts for ALL," n.d.).

Chapter 2 reviewed curricular and pedagogical practices of visual arts education. It investigated the significance of the visual arts on school culture, and the relationship between school culture and art education. It examined the educational pathway of STEM and the integration of art to create the STEAM curricular framework. Furthermore, it explored the relationships between art and science, as well as art and the brain. In addition, it investigated the cognitive processes relative to art, imagination, and creativity. Lastly, a history of educational reform and the standards movement which resulted in the 2001 enactment of NCLB was reviewed. The review included the investigation of policies, programs, skills, and curriculum that are aligned to the 21st century economy. Chapter 3 will outline the methodology for this study. The method of

data collection and plan for data analysis will be described. It will also discuss the participants, instrument development, and procedures**.**

# CHAPTER 3

# RESEARCH METHODOLOGY

The making of art is a highly cognitive process that develops creative, imaginative, and problem-solving skills (Eisner, 2002; Gardner, 1982, 1992; *Learning and the Arts: Crossing Boundaries*, 2000). Although NCLB sought to close the achievement gap and establish equity in education, critics contend remnants of the law do not adequately assess the aptitudes that matter most in today's economy (Wagner, 2012). Also, others suggest the emphasis on testing in reading and math jeopardizes the importance of other curricular areas (Beveridge, 2010; McMurrer, 2007; von Zastrow & Janc, 2004). The emphasis on reading and math competencies remain important; however, the arts foster the innovative, creative, and collaborative skills to develop products and services. (Friedman, 2007; Pink, 2005; Tapscott & Williams, 2006). An educational system which cultivates diverse abilities and crosses over multiple disciplines provides students with the greatest chance for economic success (Friedman, 2007; Zhao, 2009). Exposure to a quality kindergarten through grade 12 visual arts program that incorporates innovative, creative, and imaginative skills increases a student's opportunity to be a success in today's world.

The purpose of this qualitative study was to investigate how a high-performing school district implements a visual arts program from a kindergarten through grade 12 perspective. Through this process, the researcher identified the perceptions, roles, practices, and characteristics of central office administrators, principals, and visual arts teachers. Additionally, this study aimed to understand how this was accomplished in a time of mandated summative assessments and school performance accountability. This

chapter introduces the design of the study by describing the problem, participants, instrument, procedures, and methods relating to the validity, reliability, and data analysis.

## Statement of the Problem

There is incongruence between the current educational reform that tests logical, linear, sequential, and analytical abilities and the aptitudes required most for the global marketplace. As a result, policymakers and public educators must reassess the accountability system and the purpose of public education. The challenge for educators is how to provide and implement programs and practices that nurture problem-solving, collaboration, imagination, and creativity while attaining growth and success in a standards-based environment. This study intended to comprehend the perceptions, roles, practices, and characteristics of central office administrators, principals, and visual arts teachers of a high-performing suburban school district as they implement a kindergarten through grade 12 visual arts program. Also, it sought to discover how to implement a quality visual arts program in a standards-based environment.

## Research Questions

The following questions guided this qualitative study:

1. How do the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district perceive the value of the visual arts in increasing the quality of teaching and learning as well as student achievement in a standards-based environment?
2. What are the roles of the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school

district in the implementation of a kindergarten through grade 12 visual arts program?

3. What are the practices and characteristics of a high-performing school district that implements a kindergarten through grade 12 visual arts program in a standards-based environment?

## Research Design

This study utilized qualitative methodology to provide the researcher with an understanding of how the participants of a high-performing school district perceive and implement a kindergarten through grade 12 visual arts program while continuing to achieve high-performing status either according to the Pennsylvania Department of Education's measure of accountability for public schools or through local or national recognition. A case study method investigated the essential contextual conditions of a high-performing school district (Yin, 2014). The researcher used a semi-structured interview format to enable the participants to express their perceptions in an open-ended format. The researcher also developed an interview protocol (Appendix A) to assist in the structuring of the interviews (Creswell, 2012). Data collection for the study primarily consisted of one-on-one interviews with the superintendent, assistant superintendent, curriculum director, building principals, and one teacher from each respective building level: elementary, middle school, and high school.

The researcher validated the findings by using triangulation to corroborate the perspectives of the superintendent, assistant superintendent, curriculum director, principals, and teachers by obtaining several sources of evidence (Yin, 2014). Also, the researcher used the procedure of member checking to validate that the description of the

findings was accurate, complete, and a fair representation of the participants' account (Creswell, 2012). The procedure of peer review used by the researcher as a method of triangulation. According to Lincoln and Guba, as cited in Creswell (2013), the role of the peer reviewer provides an external check by questioning the researcher regarding the procedures, meanings, and understandings relative to the research process.

## Participants

The researcher studied a high-performing school district in Pennsylvania that included a high school, a middle school, and three elementary schools. The participants ($N$ = 13) were selected based on national and local recognition as a high-performing school district. Also, the participants maintained the philosophy of utilizing a comprehensive kindergarten through grade 12 visual arts curriculum as a pathway for children to become creative and innovative problem-solvers. The district's arts curriculum aligned to the Pennsylvania Arts and Humanities Academic Standards and introduced artistic skills and concepts at the elementary levels while offering courses in the visual arts at the middle and high school levels. Lastly, the participants attained high-performing status with a robust visual arts program while operating within the parameters of a limited budget.

For the 2016 school year, the participants received national recognition for their high school as being one of Pennsylvania's top achieving schools based on the results of state assessments or nationally-normed tests. In Pennsylvania, a building level score defines the state measure of accountability for academic achievement of a public school. The SPP score is a numerical value not exceeding 100 that reflects academic performance in the areas of academic achievement, closure of the achievement gap, and academic

growth in the tested subjects of Algebra 1, Literature, and Biology. The SPP score also displays academic performance in the areas of industry standards-based competency assessments and college readiness. Additionally, the SPP score includes points for cohort graduation, promotion, and attendance rates (Pennsylvania Department of Education, n.d.). For the 2013-2014 through 2016-2017 school years, the high school averaged an SPP score of 92.85. In 2016, the district ranked in the top 10 school districts in Pennsylvania according to local media publications. Also, within a seven-county region, the district ranked third out of 105 school districts. Three years of state standardized test scores determined this ranking.

The participants selected for this study was a result of their commitment to providing a quality kindergarten through grade 12 visual arts program. Beginning in the fall of 2017, the district forged a partnership with the Arts Education Collaborative (AEC). Directed and funded by the Carnegie Museums of Pittsburgh, the AEC strives to support quality art education in Southwestern Pennsylvania through collaboration, research, and advocacy. The AEC assists schools and art educators in making the arts central to learning by providing programs and resources that impact the curriculum in meaningful and engaging ways. (Arts Education Collaborative, n.d.).

The researcher obtained a purposeful sample for this study by initiating contact with the assistant superintendent of the targeted school district (Appendix C). The researcher utilized participants from each level of school leadership and instruction to garner a deep understanding of the central phenomenon (Creswell, 2012). School leadership participants consisted of the superintendent, assistant superintendent, curriculum director, and principals from each of the three levels: elementary, middle

school, and high school. Also, participants included a visual arts teacher from each of the three respective instructional levels.

All participants have experience in implementing the visual arts in the district at either building level leadership or the instructional level. Based on the participant's philosophy, experience, certified credentials, and knowledge of implementing the visual arts kindergarten through grade 12, the researcher maintains that the participants provided the amount of data needed to obtain a saturation point for this study. According to Creswell (2012) saturation is "a state in which the researcher makes the subjective determination that new data will not provide any new information or insights for the developing categories" (p. 432). As a result, the data provided by the participants enabled the researcher to answer the research questions by developing categories for data analysis.

## Research Setting

The research setting for this study occurred in multiple locations. One-on-one in-depth interviews occurred at each principal's and teachers' respective building while interviews of the superintendent, assistant superintendent, and curriculum coordinator took place in the district's central offices. A scheduled time for interviews happened at a time that was convenient for the participants.

## Instrument Development

The researcher developed an interview protocol to answer the research questions (Appendix A). Although data collection was dependent upon information from individual interviews, the design of interview protocol addressed how the organization implemented a kindergarten through grade 12 visual arts program in a standards-based

system. Additionally, the design of the interview protocol addressed why the organization utilizes visual arts to educate the child (Yin, 2014).

The interviews consisted of open-ended and closed-ended questions aligned to the research questions. The researcher used open-ended questions to address the research questions in the study specifically and to develop a deep understanding of the problem. The use of closed-ended questions garnered information about the theoretical or conceptual framework of the study. Utilizing open-ended questions as a follow up to a closed-end response allowed participants to expound upon their answers (Creswell, 2012). The design of all the questions was to gather specific data relating to the research questions. Using the conceptual framework of Pink (2005) and the literature of current leading authors of 21st-century education, the researcher developed the interview questions. Preceding each in-depth interview, the researcher asked questions relating to each participant's current role, years of service within the district, and professional background (Appendix B). Table 2 provides an alignment of the research questions to the interview questions.

Table 2

*Research Question to Interview Question Alignment*

| Research Question | Interview Questions |
|---|---|
| 1. How do the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district perceive the value of the visual arts in increasing the quality of teaching and learning as well as student achievement in a standards-based environment? | Interview Questions 1-9, 20 |
| 2. What are the roles of the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district in the implementation of a kindergarten through grade 12 visual arts program? | Interview Question 10-12, 20 |
| 3. What are the practices and characteristics of a high-performing school district that implements a kindergarten through grade 12 visual arts program in a standards-based environment? | Interview Questions 13-19, 20 |

## Validity and Reliability

A variety of sources provided the evidence to ensure construct validity. The variety of sources of evidence included open-ended interviews and organizational documents. These sources used enhanced the findings through triangulation (Yin, 2014). For this study, one-on-one interviews, the district's strategic plan, programs of studies, board policies, professional development plans, assessment documents, interview protocols, and miscellaneous district documents provided information for the researcher to converge lines of inquiry.

A review of these documents determined if the participants' responses relating to the visual arts corroborated the evidence needed to answer the research questions

properly. The school district's strategic plan validated evidence relating to the strategy for continued growth and sustainability of the district's visual arts program. Program of studies for the elementary, middle, and high school levels examined provided a review of the curricular offerings, scope and sequence of courses, prerequisite skills and knowledge, and required courses in the visual arts. A review of documents including board policies, professional development plans, assessment documents, interview protocols, and miscellaneous district documents further validated practices relating to the implementation of the district's kindergarten through grade 12 visual arts program.

The researcher utilized member checking by providing participants with a summary of the themes and interpretations to confirm the data obtained from the interview process was complete and accurate (Creswell, 2012). Member checking is viewed as an essential strategy for establishing trustworthiness (Lincoln & Guba, 1985). Through member checking, the researcher asked the participants to confirm the accuracy of the information. The participants reviewed the information to determine if themes and interpretations were accurate and represented fairly (Creswell, 2012). The participants had the opportunity to provide the researcher written analysis of the interpretations, themes, and conclusions of the interviews. The researcher encouraged the participants to provide input on the analysis regarding accuracy and omitted data from the interview. Additional insights and opinions were also accepted.

The researcher also incorporated peer review as a form of triangulation. Through this process, the peer asked questions relating to the researcher's methodology and interpretations. The researcher held peer review debriefing sessions regularly. The peer reviewer understands qualitative research, quality teaching and learning, and currently

holds an administrative position, Superintendent Letter of Eligibility, and a doctorate in Administration and Leadership Studies.

When the findings can extend to circumstances beyond the original case study and when similar theoretical concepts and principles ground the study, enhanced validity occurs (Yin, 2014). Although this study intended to investigate the perspective of a district's implementation of a kindergarten through grade 12 visual arts program, other fine arts, performing arts, and content areas can utilize the same research design in a similar study. These areas include but are not limited to: music, technology education, and physical education.

Reliability in a case study develops through maintaining a trail of evidence. Through maintaining a trail of evidence, the reader will be able "to follow the derivation of any evidence from initial research questions to ultimate case study conclusions" (Yin, 2014, p. 127). To ensure reliability, the researcher followed the prescription for maintaining a trail of evidence. This prescription included the following:

1. citing in the report the sources, such as documents and interviews, used to attain the specific findings;
2. revealing evidence of the researcher's actual inspection of the sources through the marking of keywords and phrases and the methods sections should reflect the conditions under which collection of evidence took place by noting the time and place of the interview;
3. demonstrating the collection of data maintained the process specified by the protocol, the conditions should be in alignment with the process and questions detailed in the protocol;

4. aligning the interview protocol to the research questions (Yin, 2014).

## Pilot Procedures

Upon receipt of authorization from Indiana University of Pennsylvania's Institutional Review Board (IRB), the researcher conducted a pilot study to refine further and develop the planned research questions and procedures. The pilot study provided insight into the examination of the fundamental issues and the opportunity for the researcher to perfect his interview skills (Yin, 2014). A pilot group for the study was requested from a school district that was near and accessible to the researcher. The pilot participants assessed the interview instrument for clarity and relevance. Pilot participants represented each of the school leaders identified in the study. Pilot participants included (a) central office administrators, (b) a high school principal, (c) a middle school principal, (d) an elementary principal, and (e) a visual arts teacher. Notification to each respondent included the purpose of the study and interview questions, an informed consent letter to sign, and assurances that their identity and responses would remain confidential.

The researcher conducted in-depth pilot interviews. An audio-tape device recorded the interviews which were transcribed by the researcher. Each participant received a transcript of the interview. Pilot participants member checked their own interview transcript for the accuracy of the pilot interview. Also, the researcher asked each pilot participant to provide input relating to the wording, sequencing, and appropriateness of the interview questions. The researcher also sought input regarding the alignment of the interview questions to the research questions. Lastly, pilot participants identified additional questions that the researcher should ask to answer the research questions appropriately. Once collection of the data was complete, the

researcher coded responses to each question to detect potential themes and evaluate interview questions for the purposing of refining the interview protocol.

## Pilot Results

Pilot interviews with central office administrators; principals from the elementary, middle, and high school levels; and a visual arts teacher revealed areas of refinement relating to interview procedures and clarity of the interview questions. Also, the pilot interviews exposed the researcher to the process of transcribing audio-recorded interviews and the opportunity to practice identifying codes and possible themes garnered from the transcript.

Through the pilot interviews, it became evident that the researcher needed to modify several questions for clarity and structure. Also, language needed to be added to make the questions specific to the studied school district and the visual arts. Overall, participants indicated the questions were relevant and aligned with the research questions. Participants also indicated the questions required them to reflect on their perceptions and roles as well as the district's practices relative to the value and implementation of the visual arts. Furthermore, the researcher initially presented each interview question to the participant in electronic format. After the second pilot interview, the researcher found this approach to be awkward and negated the personal interaction between the researcher and the participant. Subsequently, the researcher provided the participants with a hard-copy of the interview questions before the start of the interview so they could refer to an interview question, if necessary.

The researcher quickly noticed that some of the questions were not producing purposeful responses either because the questions were too vague, or omitted words

caused the participant to seek clarification or ask the researcher to repeat the question. For example, question 4a the word "the" was added in front of "central office administrators" to indicate the researcher's intent to understand the perceptions of the studied school district and not perceptions of central office administrators in general. Also, in question 5 adding the term "visual arts" clarified for the participant that perceptions related to the district's vision. Additionally, adding the term "visual arts" to questions 13a and 13b clarified the common instructional and assessment practices that referred specifically to the visual arts. Furthermore, added wording to questions 6, 10, 15, and 15a elicited responses to address the qualities, roles, and practices regarding the implementation of the district's visual arts program rather than referring to the visual arts on a broader scope. Lastly, the researcher found questions that sought to gain an understanding of perceptions such as questions 4a, 4b, 4c, and 5 benefited from prefacing the question with the wording "from your perspective." This approach afforded the participant with the understanding that the intent of the questions was to gather their perceptions and not the general perceptions of others.

The pilot study interviews averaged approximately 38 minutes to complete. The researcher transcribed each interview into a Google Document with the use of the Voice Typing tool. The Voice Typing tool provided the researcher with a significant alternative for transcribing the interviews. The pilot study enabled the researcher to verify the interview questions would provide the necessary qualitative data to address the research questions as well as provide practice for interview and transcription procedures.

## Procedures

The researcher contacted the district's assistant superintendent to discuss the study and seek permission to interview district personnel. The researcher emailed the assistant superintendent a letter explaining the purpose of the study and a request for a site letter granting permission to conduct the study at the research site (Appendix C).

Upon receipt of authorization to conduct the study, the researcher communicated with the assistant superintendent to obtain the names and contact information for the curriculum director, building principals, and one visual arts teachers from each building level (kindergarten through grade five, grade six through grade eight, and grade nine through grade 12). The researcher sent an email with an invitation letter to each participant outlining the purpose of the study and attached an informed consent letter (Appendices D and E). The informed consent letter explained participation in the study was strictly voluntary, and the participant reserved the right to remove themselves from the study at any time.

The researcher sought the assistance of the assistant superintendent to schedule interview dates, times, and locations for the in-depth interviews with the superintendent, assistant superintendent, curriculum director, and respective buildings level principals, and visual arts teachers. Before being interviewed, participants agreed to the terms detailed in the informed consent letter as indicated by their signature.

During the in-depth interviews, the researcher followed an interview protocol to ensure consistency throughout the research process. The researcher transcribed each interview. Transcripts of the interview were only available to the researcher. Table 3 outlines the procedures for collecting data.

Table 3

*Procedures for Collecting Data*

| Step | Procedure |
|---|---|
| Step 1 | Seek approval from the Superintendent of schools to conduct the study. |
| Step 2 | Correspond with the assistant superintendent regarding the names and contact information of the participants. |
| Step 3 | Emailed invitation letter explaining the purpose of the study and informed consent letter to participants. |
| Step 4 | With the assistance of the assistant superintendent, schedule in-depth interview dates, times, and locations with the participants. |
| Step 5 | Receive and review the signed informed consent letter before the start of each in-depth interview. |
| Step 6 | Complete a one-on-one in-depth interview. |

## Data Analysis

With the use of an interview protocol, the researcher conducted in-depth interviews with the superintendent, assistant superintendent, curriculum director, building principals, and one visual arts teacher from each building level (kindergarten through grade five, grade six through grade eight, and grade nine through grade 12). In-depth interviews electronically recorded, transcribed, and printed ensured accuracy for the manual process of analyzing, coding, and categorizing the data. Creswell (2012) noted the coding process enables the researcher to understand the information. During this process, the researcher organized the information "into text or image segments, labels the segments with codes, examines codes for overlap and redundancy, and collapses these codes into broad themes" (p. 243). Vaismoradi, Jones, Turunen, and Snelgrove, (2016) support this strategy for the development of qualitative themes by contending, "coding, collecting codes under potential subthemes or themes, and comparing the emerged

coding's clusters together and in relation to the entire data set comprise the main components of data analysis" (p. 101). The researcher utilized this methodology to code the data set and to develop themes to categorize the data.

The development of themes aided the researcher in further organizing the data for analysis. Auerbach and Silverstein (as cited in Saldana, 2009) defined a theme as "an implicit topic that organizes a group of repeating ideas" (p. 139). A theme represents an idea of the participants or a concept developed during data analysis. In addition to the repeating of ideas, the identification of a theme occurs by the repeating of terms, transitions within a topic, and the participant citing similarities and differences (Rubin & Rubin as cited in Saldana, 2009; Ryan & Bernard as cited in Saldana, 2009). Themes emerged these processes and the researcher correlated the themes to the research questions. Also, as suggested by Creswell (2013), the researcher identified patterns and correlation between two or more categories.

## Summary

Chapter 3 provided the research design, the participants, the research setting, the instrument development, the pilot procedures, and the steps for data analysis. This qualitative study sought to understand how a suburban school district implemented a kindergarten through grade 12 visual arts program while consistently attaining high academic performance. Through this process, an examination of perceptions and roles of central office administrators, building level principals, and visual arts teachers, as well as program characteristics, occurred.

A case study design, according to Yin (2014), affords the opportunity to capture the significant contextual conditions. Therefore, using this method yielded the most

relevant results in analyzing the perceptions, roles, and practices of a high-performing school district. Selection of the studied school district was due to their national, state, and local recognition and achievement as a high-performing school district, and their commitment to providing a quality kindergarten through grade 12 visual arts program. The district's strategic plan, programs of study, board policies, professional development plans, assessment documents, interview protocols, and miscellaneous district documents validated the participants' responses. A pilot study, member checking, and peer review enhanced validity. In Chapter 4, the researcher will analyze the data obtained and interpret the findings from the study.

# CHAPTER 4

# DATA ANALYSIS

The purpose of this qualitative study was to understand the perceptions, roles, practices, and characteristics of a high-performing suburban school district's implementation of a kindergarten through grade 12 visual arts program. Also, it sought to understand how the implementation occurs in a standards-based environment. The data collection consisted of qualitative data from one-on-one in-depth interviews. The participants ($N$ = 13) for this study included the district's superintendent, assistant superintendent, curriculum director, principals from each of the three levels; elementary, middle school, and high school, as well as visual arts teachers from each of the district's respective schools. Analyzation of the data determined how the participants perceived the value of the visual arts relative to academic success as well as revealed the specific roles, strategies, best practices, qualities, and obstacles in the implementation of a kindergarten through grade 12 visual arts program. The interview questions (Appendix A) answer the following research questions:

1. How do the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district perceive the value of the visual arts in increasing the quality of teaching and learning as well as student achievement in a standards-based environment?
2. What are the roles of the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district in the implementation of a kindergarten through grade 12 visual arts program?

3. What are the practices and characteristics of a high-performing school district that implements a kindergarten through grade 12 visual arts program in a standards-based environment?

This chapter presents demographic information for each of the participants as well as a synopsis of their responses to the interview questions. It then outlines the categories of (a) perceptions of district personnel, (b) roles of district personnel, and (c) practices and characteristics of a high-performing school district. Within each of these categories, themes emerged from the data. Under each category is an analysis of the themes for that category.

Additionally, threaded into the analysis of the themes is the evidence from multiple documents that validate the data. These documents include the district's (a) strategic plan, (b) programs of study, (c) board policies, (d) professional development plans, (e) assessment documents (f) interview protocols, and (g) miscellaneous district documents.

## Demographics

The origin of the school district for this study dates back to the middle 1800s. The school district exists in a 16 square mile thriving suburban community that includes a population of approximately 18,000 residents. The district serves a student population of approximately 3,000 students for grades kindergarten through 12 and has an operating budget of approximately $51 million. The educational program occurs in one high school, one middle school, and three elementary school buildings. Within the state of Pennsylvania, the district is approximately one of 30 school districts identified as consistently reporting significantly higher percentages of students attaining proficient or

advanced scores on state reading and math assessments than other school districts with comparable demographics. Also, the district received recognition from local and national publications as a high-performing school district based on state reading and math assessment scores. Furthermore, according to a national publication, the district earned the highest rating in their respective county with regard to the ratio of the district's spending to the number of students earning proficient scores on state reading and math assessments. Lastly, the district has the highest graduation rate within its respective county, and approximately 95% of the district's graduates pursue post-secondary education.

The collection of data for this study occurred through one-on-one, in-depth interviews with central office administrators, principals, and visual arts teachers of the chosen high-performing suburban school district. The school district consists of one high school, one middle school, and three elementary buildings. Interviews included each principal and a visual arts teacher from each of the district's buildings to provide a district-wide perspective. To obtain an understanding of each participants' role within the district and professional background, the researcher asked three questions that proceeded the interview questions (Appendix B). Each participant responded indicating their current role and length of tenure in that role as well as gave information relating to their education, professional certifications, previous professional positions, and total years of service in education. Table 4 provides each participants' current position, years of experience in their current position, and total years of service in education.

Table 4

*List of Participants With Current Position, Years of Experience in Current Position, and Total Years of Service in Education*

| Participant (P) | Position | Years of experience in this position | Years of experience in education |
|---|---|---|---|
| 1 | Superintendent | 2 | 33 |
| 2 | Assistant superintendent | 2 | 20 |
| 3 | Curriculum director | 2.5 | 18 |
| 4 | High school principal | 4 | 14 |
| 5 | Middle school principal | 2 | 18 |
| 6 | Elementary principal one | 8 | 18 |
| 7 | Elementary principal two | 3 | 32 |
| 8 | Elementary principal three | 2 | 12 |
| 9 | High school art teacher | 21 | 22 |
| 10 | Middle school art teacher | 2 | 18 |
| 11 | Elementary art teacher one | 2 | 10 |
| 12 | Elementary art teacher two | 11 | 12 |
| 13 | Elementary art school teacher three | 5 | 10 |

## General Description of Participants

The researcher used the plural pronouns "their" or "they" to be non-gender specific for the purpose of maintaining the anonymity of the participants. All participants worked in a public school setting for a minimum of three years. The participants' experience in the field of education ranged from ten to thirty-three years. The district's superintendent (P1) served in their current role for the past two years. The district's assistant superintendent (P2) as well as the elementary school principal three (P8), and elementary school art teacher one (P11) served in their current roles for two years. The middle school principal (P5) has served in their current role for the past two years and previously served for seven years as the district's middle school assistant principal. The middle school art teacher (P10) served in their current role for the past two years and previously taught art at the elementary level in the district for five years. The curriculum director (P3) served in their current role for two and a half years and served six and a half years within the district as a high school assistant principal. The high school principal (P4) served in their current role for four years. The high school principal served in the district as a high school teacher, data coach, department chairperson, and high school assistant principal. Elementary school principal two (P7) served in their current role for three years as well as served as the district's curriculum director for seven years. Elementary school principal one (P6), the high school art teacher (P9), the elementary school art teacher two (P12), and elementary school principal three (P13) served in their current roles for 8, 21, 11, and five years respectively.

The superintendent (P1) had previous experience as a school psychologist at a number of school districts. Also, the superintendent served in the leadership roles of

director of pupil services and assistant superintendent at two different school districts. The assistant superintendent (P2) has experience as a middle school and high school English teacher as well as a dean of students and assistant principal at both the middle school and high school levels and as a high school principal in various school districts. Additionally, the assistant superintendent (P2) taught as an adjunct professor as well as served as the graduate program coordinator for two different universities. The curriculum director (P3) served as an intermediate unit curriculum specialist between serving as the district's assistant high school principal and their current role. The curriculum director (P3), the middle school principal (P5), and elementary school principal one (P6) served as secondary math teachers in other school districts prior to their leadership roles in the district. Also, elementary school principal one (P6) served as an assistant principal and principal prior to joining the district as an elementary school principal. Elementary school principal two (P7) served as an elementary school teacher, math department and technology department chairperson, middle school dean of students and assistant head of school for an urban private school before coming to the district. Elementary school principal three (P8) served as an elementary school counselor and elementary school assistant principal before being hired as one of the district's elementary school principals.

Of the 13 participants, the high school art teacher (P9) has the longest tenure in the district with 21 years. The middle school art teacher (P10) taught elementary art in multiple states. Elementary school art teacher one (P11) also teaches one middle school art class and holds the position of art department liaison. Prior to arriving at the district, elementary school art teacher one (P11) taught art to fifth-grade students while serving as

a museum art educator. Also, they taught art as a graduate assistant and as an elementary teacher at a private elementary school. Elementary art school teachers two (P12) and three (P13) are the two other elementary school art teachers in the district. Elementary school art teacher two (P12) also serves as an enrichment facilitator for their respective building. Elementary art school teacher three (P13) also taught art at the primary level for four years prior to arriving at the district. All participants have at least ten years of educational experience which provided them the substance to adequately respond to the interview questions.

**Participants Background Related to the Visual Arts**

The following narrative represents responses from the district's central office administrators, building principals, and visual arts teachers regarding their background related to the visual arts. The superintendent (P1) noted they grew up in a family that had much respect and passion for the arts. The participant explained their father was a talented musician and their mother was an early childhood educator. As a result, they had a broad exposure to the musical and visual arts. The participant noted their connection to the arts primarily evolved through the literary arts. The assistant superintendent (P2) described their background in the visual arts from a supervisory and administrative perspective. They previously supervised visual arts and performing arts programs as a principal in another district. Through that role, they received the *Distinguished Program Award* from the Middle States Association. They also worked with an artist in residence program that consisted of students working with a practicing artist to see how art is understood, designed, and brought to completion. Additionally, they participated in a district-sponsored fundraising gala that raised approximately a

quarter of a million dollars for art education. The curriculum director (P3) noted their visual arts background is mostly from their primary and secondary school experience as a student. They especially noted that their other experiences in the visual arts included their work from previous professional positions as well as participating in an arts leadership program.

The high school principal (P4) noted that beyond a supervisory role, they do not have an in-depth background relating to the visual arts. The middle school principal (P5) indicated that the visual arts were not a strength or interest for them and their background was primarily limited to their interests in mathematics and science. Elementary school principal one (P6) explained their background in the visual arts primarily consisted of working with teachers in their role as a principal. Elementary school principal two (P7) indicated their background in the visual arts consisted of serving as an administrator in a private school as well as serving in their former position as the district's curriculum director. Elementary school principal three (P8) did not have a background relative to the visual arts.

The high school art teacher (P9) explained they enjoy creating two-dimensional art; however, their strengths lend more to creating three-dimensional art forms. The middle school art teacher (P10) noted they always had a passion for art and had much experience working with children. Therefore, it became evident to them that they wanted to pursue a career as an art educator. Elementary art teacher one (P11) explained they had a passion for making art as a child and knew early in their life that they wanted to be an art teacher. The participant worked in museums as an art educator and has an interest in art history. Their interest in art history inspires them to know and appreciate the

historical background related to works of art. In addition to their role in the district as an art teacher and art department liaison, the participant teaches art during the summers at an established art center. They have also taken courses in ceramics, papermaking, figure drawing, and sewing. The participant further noted they work to broaden their knowledge with as many media as possible and recently studied the use of technology in making art. Elementary art teacher two (P12) indicated their undergraduate degree was in the visual arts and they participated in teaching an art camp within the district. Elementary art teacher three (P13) explained they have always been a creative and visual person. They were encouraged by their parents at an early age to pursue the study of art. Furthermore, as a young adult, they knew they wanted to work with people. As a result, they pursued post-secondary degrees in art education and art history. Lastly, the participant noted they create mostly pottery; however, they practice a variety of media as well.

### Participants Personal Interests in the Visual Arts

The following narrative represents responses from the district's central office administrators, building principals, and visual arts teachers regarding their personal interests related to the visual arts. The superintendent (P1) expressed their personal interest in the visual arts as the following:

> It really comes down to knowing that there is an inspirational aspect of the arts. I saw this transform my daughter who was a high school student and got involved with the arts. I thought she was going to be pre-med and she took a number of AP art classes and decided that I'm going to get a Bachelor of Fine Arts. I watched it change her to express who she was, and, I guess on a personal level, that

> solidified for me that the arts are truly important to the life-changing events that can occur for us all. I see now for our students that the expectations in the real world, the modern world, is that there is a design and artistic aesthetic component to what our kids need to be able to do to be competitive and to be successful. Let alone to make meaning out of their lives. I think that it has now become actually a real-world skill. It personally is rewarding to me as I look at the arts as a way to help me understand the world, and now I see it as a very important ability and experience for our students.

The assistant superintendent (P2) explained their personal interest in the visual arts stemmed from their role as a high school principal when hiring three outstanding art educators and people. This experience provided them with an understanding of the importance of the visual arts in "keeping children balanced and healthy." Also, it also brought into focus the importance of the visual arts in helping children understand the world around them and providing the skills to solve complex problems. In a former role as an assistant high school principal, the participant indicated they recognized the importance of providing resources, time, space, and the schedule to grow the program to appropriately meet the needs of the students. The curriculum director (P3) attributed their personal interests in the visual arts to the qualities of creativity, self-reflection and monitoring, and feedback.

The high school principal's (P4) interest in the visual arts stems from witnessing the students' abilities to create and hone their artistic talents. Additionally, their interests in the visual arts centered on providing support for the program. The middle school principal (P5) also views the visual arts as necessary to the development of well-rounded

students and as a motivating factor in assisting students to identify and cultivate their passions. Elementary school principal one (P6) indicated they had no specific interest in the visual arts. Elementary school principal two (P7) explained they have close relatives that are visual art and music teachers. The participant noted much time is spent discussing the arts with family members. Additionally, they have a strong passion for the arts and have great respect for art teachers. Elementary school principal three (P8) indicated their primary interest in the visual arts is to support younger artists through the display of their artwork.

The high school art teacher (P9) possesses a keen interest in handcrafted ceramics as well as working in oil pastels. The middle school art teacher (P10) noted they enjoy drawing, painting, and art history. Elementary school art teacher one (P11) indicated their primary medium is watercolor painting; however, they consistently seek opportunities to learn new medium such as screen-printing. Elementary school art teacher two (P12) has a personal interest in both the fine and graphic arts. Lastly, elementary school art teacher three's (P13) expertise is primarily wheel thrown ceramics; however, they enjoy exposure to new medium and techniques in the visual arts.

## Analysis of Interview Responses

The researcher categorized the qualitative data into general categories that aligned with the research questions. Category 1 aligns to the first research question as it pertains to perceptions of district personnel. Category 2 aligns to the second research question as it pertains to the roles of district personnel. Category 3 aligns to the third research question as it pertains to practices and characteristics of a high-performing school district.

Coding of interview responses revealed themes within each of the categories while synthesizing the themes resulted in broader themes of streamlined data.

**Category 1: Perceptions of District Personnel**

Participants responded to a series of questions relating to their perceptions of the visual arts in the context of an educational setting. The participants described their perceptions of the visual arts educationally as well as the relationship between the visual arts and the district's vision and goals. The participants then described their perceptions of the district's central office administrators, principals, art teachers, and other educators regarding the purpose of the visual arts. Additionally, the participants identified the qualities of the district's visual arts program that are important to the academic success of the district. Participants also described the relationship between the teaching of the visual arts and student learning and the impact of the visual arts on the development of the learner. Through this line of inquiry, participants identified the skills students acquire through the visual arts that can cross over into other domains as well as the benefits the study of the visual arts provides for students as citizens of the twenty-first century. Furthermore, participants identified the impact of educational mandates on the implementation of the district's kindergarten through grade 12 visual arts program. Lastly, participants answered a series of questions relating to the impact and contributions of the district's visual arts program to academic growth performance and School Performance Profile (SPP) scores.

**Theme 1: Creativity.** Creativity emerged as a central theme relative to the study of the visual arts. The superintendent (P1) maintained the belief that

> the arts and humanities are the most important aspect of the educational program in terms of making sense of who we are as humans and how some of the aspects of who we are and what it means to be human are best expressed and understood through the arts.

The assistant superintendent (P2) supported this belief by indicating that through the study of the visual arts, the ability to create something after working for an extended time is a very personal process that enables an individual to view and reflect on the world around them. Furthermore, the process of creativity enables an individual to become attentive, attuned, and invested. It is through the development of these skills that an individual can maintain a sense of being human and sound. The curriculum director (P3) noted the ability to create and design in a world that demands innovation is a distinguishing factor regarding the educational importance of the visual arts. In addition to providing students the opportunity to become conscious and critical viewers of the world, the elementary art teacher one (P11) perceived the visual arts as a way to teach students to become creative thinkers and problem solvers. Lastly, elementary school principal two (P7) asserted that a visual arts program that expands on a student's creativity through divergent questioning and problem-solving is critical to the mission of a school.

The superintendent (P1) indicated that the district's mission statement ensures that "students have the skills for future collaboration, creativity, critical thinking, and innovation, and have the kind of character and integrity to then impact the world." Of these skills, 10 of the 13 participants noted creativity as a value of the visual arts with regard to increasing the quality of teaching and learning as well as student achievement.

The theme of creativity connects to the areas of (a) problem solving, (b) critical thinking, (c) divergent thinking, (d) understanding multiple perspectives, (e) student collaboration, and the (f) whole child. Supporting these connections, the assistant superintendent (P2) explained,

> Part of the district's mission and vision is for the students to be collaborative and problem solvers and being able to do some good in the world so that they can contribute to this. So, there is a direct connection between the benefits of being in an art education program and fulfilling the mission statement that we have for all of our students K through 12. Part of it is being an innovator and to be able to create something. So, art brings those kinds of skills and qualities to the forefront. Art is not a passive subject. You can't just sit in an art class and think it's going to happen to you. You have to actively engage. It requires a response. You have to be an active participant in an art class. You can't just sit and get. You can't just think it's going to happen. It's almost a symbiotic relationship between becoming an active learner, problem solver, creator in art class and being an active learner, problem-solver, and creator as part of the mission statement. It's almost that they scripted the mission statement thinking about that.

The superintendent (P1), assistant superintendent (P2), curriculum director (P3), high school principal (P4), middle school art teacher (P10), and elementary school art teacher three (P13) indicated that creativity is an iterative process. The superintendent (P1) explained that high-performing school districts have historically understood the importance of emphasizing that failure is a healthy aspect of learning. Moreover, designing and creating requires many iterations, and the skills of persistence and the

ability to utilize failure are central to the creative process. The assistant superintendent (P2) asserted many things outside the realm of the visual arts also go through many iterations and through this process, the product becomes more vibrant and more complex. The assistant superintendent (P2) and curriculum director (P3) noted the ability to accept and utilize feedback to enact change is paramount to improving the product and is germane to the visual arts. The high school principal (P4) provided the description of the iterative process and the use of feedback relative to creativity and understanding multiple perspectives in the visual arts classroom.

> Sometimes they have this idea of exactly what they want to create, but when they start to prototype it or put it together it doesn't seem to fit the vision that they have, and so they have to really have resiliency and grit to work through to figure out how to bring it to fruition and to get other people who see their artwork to sense and feel the same thing. They write an artist statement that goes along with their piece. They then have a critique period where students have to present their artwork to other students in the class, and they have to allow students to give feedback on what their interpretation of the work is, and they see whether or not it matches up to the purpose of their original goal. It makes them really think through the other perspectives in the classroom.

The middle school art teacher (P10) explained the iterative process involved in creating art is difficult for students. As a result, middle school art teacher (P10) requires the students to produce multiple designs before creating so they can develop an understanding of the possible solutions and multiple perspectives before making art. Elementary school art teacher three (P13) also emphasized that the creation of art

requires time and practice. Similar to writing a paper for a core subject class, the creation of art is no different in that the first draft goes through a series of revisions. The participant noted the example of having fifth-grade students create logos. For this assignment, students were required to brainstorm and create several iterations of their logo before completion.

Multiple participants recognized the development of creative abilities through the visual arts as being significant to students' development as a leaner and as a citizen of the twenty-first century. The superintendent (P1) attributed the visual arts to developing creativity, and innovation as well as the ability to recognize multiple solutions as essential skills. The superintendent (P1) further explained that the visual arts provide the opportunity to create multiple representations around an aesthetic theme. As a result, the development of these skills become a wonderful cross-cutting tool to utilize across other disciplines. The high school principal (P4) and middle school principal (P5) also recognized creativity as well as problem-solving, and aesthetic development as dividends provided by the visual arts. The high school principal (P4) explained the importance of students interested in math and science being able to understand form follows function and that aesthetic appeal also matters. Therefore, using the visual arts as a vehicle to teach students to create a product that has a functional design as well as aesthetic appeal is vital in enticing someone to utilize that product as a potential solution. The middle school principal (P5) emphasized the necessity to utilize creativity to promote conceptual understandings across all content areas. Moreover, elementary school art teacher three (P13) maintained the visual arts aid the creative process by teaching empathy and the ability to see multiple perspectives. Furthermore, elementary school principal two (P7)

viewed the visual arts extending beyond the basics of drawing and painting to the integration of engineering to solve an aesthetic problem. Elementary school principal two (P7) maintained the emphasis on problem-solving and engineering within a visual arts program enhances critical thinking skills. Similarly, the high school art teacher (P9) viewed the importance of developing confident and creative problem solvers by integrating math, history, and investigative research skills within the visual arts.

Review of the visual arts' purpose statement for the elementary level indicated the visual arts program intends to teach students the attitudes to confront and solve problems through creative solutions. Elementary school principal three (P8) explained the visual arts serve as a natural venue for students to be creative. Through a less rigid structure and by providing choice, students are more apt to express themselves fully. Elementary school principal three (P8) asserted the following regarding the relationship between the visual arts and creativity:

> Being able to think differently and be creative, I think that comes from instruction in the arts. I think that ties into the overall vision and the academic success of the district because we want kids to think differently. We want them to be able to think outside of the box, and we want them to not be that standard "sit in a row" kind of kid and only tell me what you think I want you to tell me. We want them to have big bold ideas. I think that the arts program supports that.

Additionally, the elementary school art teacher one (P11) inspired creativity and problem solving through the visual arts by consistently talking to the students about perseverance and understanding the value of working through boredom and difficult tasks until completion. Elementary art school teacher one (P11) empowered students to create and

problem solve by promoting a growth mindset. Students cannot say, "I'm a bad artist "or "this looks bad." The participant encouraged students to say, "I'm struggling, and I need some help." Further instilling creativity and problem solving, students reflect on possibilities for improvement. The participant added that the purpose of fostering the growth mindset is for students to use the mentality across multiple disciplines.

**Theme 2: Collaboration.** A value in the district revealed in a district document is that a transformative education includes the infusion of the arts to cultivate a level of imagination and creativity needed for a collaborative learning environment. The assistant superintendent (P2) expressed the importance of collaboration in the visual arts relative to increasing teaching and learning as well as student achievement.

> A lot of things that are happening in the visual arts can bleed over into the other subject areas but also having kids knowing themselves well, knowing how to problem-solve, knowing how to attack or address a problem, and being able to solve it often in consultation with other people or with other resources is helpful to them in their adult life. That's what we do. That's the work that I do. I don't ever work in my office by myself. I'm always in consultation with other people. I try to gather other information. I look at other perspectives.

The middle school principal (P5) supported this perspective by asserting that the ability to work collaboratively is essential to the development of a well-rounded citizen. The participant stated a quality visual arts program promotes the use of feedback to develop communication skills that useful across other domains. In addition to creativity, the participant identified collaborative skills as being essential to the overall mission of the district. Furthermore, the curriculum director (P3) noted that today's world is no longer

in silos and teams interacting with each other are addressing problems. To collaborate productively, the participant maintained providing feedback and critique based on specific goals and in a respectful manner is vital to enacting change. Also, the participant maintained the importance of developing the collaborative skill of empathy as being important as students move forward in the world. Lastly, the notion and importance of empathy in today's world and the visual arts foster instilling empathy within our students.

The superintendent (P1) identified the skill of critiquing and accepting critique in the arts as a skill underutilized in other disciplines. The participant explained, "The ability to accept criticism and critique others in a respectful, honest, and professional manner is a skill that all students should have as they go into the real world." The curriculum director (P3) summarized the impact of the visual arts as the ability to critique work as well as receive and utilize the feedback provided to improve the product. This process occurs naturally within visual arts education. The participant maintained the visual arts lend themselves well to the interdisciplinary connections of different subject areas. They indicated they regularly observe connections to the visual arts in elementary English Language Arts classes. Furthermore, these connections serve as bridges for students to broaden their learning.

The high school principal (P4) explained that in addition to the teacher providing feedback, the practice of peer feedback aides the growth of artistic skills. As an example, they described the collaborative practice of a critique session. Through this practice, students write an artist's statement that corresponds with their artwork. The student then presents their artwork to their peers for feedback and interpretations. The interpretations are then matched to the artist's statement to verify if the original goal of the artists were

met. The high school principal (P4) maintained this practice requires the students to think through other perspectives within the classroom.

The visual arts' purpose statement for the elementary level indicates the visual arts should aid students in expressing and appreciating themselves as well as learning to live with others. The Elementary school principal two (P7) supported this notion of student collaboration in the classroom by indicating although students work on their own projects, students regularly collaborate while making art. The participant recounted the following example of student collaboration as first-grade students created clay coils in art class: "Oh, you did a good job on that coil. You better be careful that coil is going to break. You don't want to roll it anymore." The participant explained the students were going to have different outcomes; however, they collaborated through the process of creating their clay coil. Elementary school principal three (P8) added the process of creating art opens discussions for both the artist and viewer regarding the artistic piece. To instill and foster the skill of collaborative critiquing, the elementary school art teacher one (P11) modeled appropriate conversations centered on art to help students respectfully identify and discuss different viewpoints. Also, as a way to provide structure for collaboration, elementary school art teacher three (P13) utilized the collaborative technique of "Grow and Glow." Through collaborative feedback, Grow and Glow helps to improve the outcome of the finished product. Upon completion of half their project, students pair up to provide their partner with a compliment and an area of improvement. With their teacher, the students discuss the feedback and discuss how they might apply the ideas from others to their artwork.

The theme of collaboration is threaded throughout the district's leadership team and principals. For the 2017-2018 school year, the entire district participated in the Arts Education Collaborative (AEC). Established in 1998, the AEC works with school districts to support quality arts education through offering programs and resources (Arts Education Collaborative, n.d.). The superintendent (P1) explained the commitment of the district is to have the principals participate in the AEC's Community of Learners for Arts Education (CLAE) leadership program. CLAE provides central office administrators and principals professional development to support quality arts learning for students (Arts Education Collaborative, n.d.). The district's central office administrators and principals will participate in the CLAE leadership program over the next three to four years.

As part of the district's strategic plan, a goal is to strengthen kindergarten through grade 12 curricular and instructional practices in the arts. In alignment with this goal, the superintendent (P1) noted the district's entire leadership team that includes central office administrators, principals, directors of finance, maintenance, and athletics participated in the AEC's City as a Classroom program. Through this program, the district's leaders were able to experience the innovative and artistic opportunities collaboratively within the region. At the conclusion of the program, the leadership team collaboratively discussed the power of what they experienced as it relates to the mission of the district.

From a building perspective, the high school principal (P4) indicated collaboration between the art teachers and the core content teachers regarding the aesthetic components of projects. Elementary school principal one (P6) and elementary school principal two (P7) recognized points of collaboration between educators to utilize the art teachers in the facilitation of cross-curricular opportunities and connections in

math. Also, the high school art teacher (P9) noted their collaborative relationship with the high school principal (P4) regarding curricular offerings in the visual arts. Elementary school art teacher one (P11) also noted their collaborative relationship with both the middle school principal (P5) and elementary school principal two (P7). Elementary school art teacher one (P11) explained a collaborative effort with the middle school principal (P5) to write a grant for turning a classroom into a print shop. The participant stated, "We're working together in partnership to really emphasize and make a special collaborative space that will facilitate making art." Lastly, elementary school art teacher one (P11) described their collaboration with colleagues and excitement to integrate core content topics into the visual arts classroom.

**Theme 3: Educational value of the visual arts.** In general, the participants identified the abilities of creativity, problem-solving, critical thinking, and understanding multiple perspectives as enhancing the educational purpose and value of the visual arts. The superintendent (P1) explained that the value of the visual arts extends beyond making a visual art form to that of cultivating the intellectual dispositions that are required to create and solve problems. Furthermore, the participant stated, "The visual arts have the ability to leverage those intellectual dispositions at a much higher level than some other content areas." The assistant superintendent (P2) supported this perception by adding that the visual arts are more than cutting and pasting pictures. The making of art is more than most people generally understand. Art is more than being analytical as it is also about perspective, problem-solving, and fine motor coordination. The ability of a student to incorporate and dissect the design elements of master painters and sculptors as well as integrate those elements into their own work is an intense cognitive process.

Additionally, the development of these skills can transfer to other content areas. For example, the following is what the participant explained about writing an English paper relating to Shakespeare.

> You're reading Shakespeare, you're picking apart why that language has stood the test of time and can you write like that? That is a high-level skill, and one would say, "If you can write like Shakespeare, that's tremendous." If you can paint and incorporate elements from different painters in your work, that's a pretty good skill too.

The high school art teacher (P9) explained the visual arts require non-linear thinking and are different from the formulaic thinking that is more prominent in a calculus or chemistry class. The participant stated,

> In the visual arts, I'll lay out the criteria and how every student perceives it and how they get there is really up to them. I feel that the importance of the visual arts in education is creating stronger critical thinkers; teaching them how to become more confident in creative problem solving, and using those skills in their academic courses.

The middle school art teacher (P10) also contended the study of the visual arts builds confidence in the learner by allowing them to struggle through the artistic process and eventually create a worthwhile product. Furthermore, this experience develops a mindset that can transfer to other areas of their learning. Elementary school art teacher three (P13) explained the visual arts help students to discern and process the large amount of visual information that inundates society. Moreover, the visual arts foster the understanding of multiple perspectives thus enhancing the skill of empathy.

The superintendent (P1) explained for students to be competitive in the world today there is an expectation for students to understand the components of design and aesthetics. The curriculum director (P3) maintained that due to the emphasis on the design process, the educational value of the visual arts is more important than ever. The abilities to brainstorm, think critically, solve problems, and create occur naturally in the visual arts and have begun to spill over into other disciplines. Elementary school principal two (P7) also maintained the value of the visual arts extends beyond the basics of drawing and painting. The participant cited elementary school art teacher one's (P11) integration of the design process to create and solve artistic problems as evidence of the visual arts extending beyond the traditional mediums. Elementary school art teacher one (P11) provided the following summary regarding the educational value of the visual arts:

> I see the visual arts as an opportunity for our students to become conscious and critical viewers of the world. So, teaching them how to look at art and look at the details that they see and engage with it personally teaches them to then walk outside of the classroom and look at adds and say, "What is this add trying to get me to see?" Or, look at the clothes that they're wearing and choose those with a critical and an attentive eye. Additionally, it teaches them to be concrete and creative thinkers and problem solvers. This is the place where I do not give them the answer. A lot of the times, I'll say, "That's a great question, let's figure it out together." This is an opportunity for them to work through those problem-solving opportunities. I see a lot of the same tools as an engineer would use. Seeing a problem for making sculptures, how do I get this to stand up? That's something that I'm doing with my first graders. That creativity, the idea that they don't come

in here and get the answers from me. They're developing their own, using their own imagination but also using their problem-solving skills to make things rather than just being consumers.

The visual arts' purpose statement for the elementary level emphasized children's' use of visual expression as a primary means to communicate, and as a result, the skills acquired and the time devoted to the visual arts are essential to learning and personal success. Several participants noted the importance of the visual arts in the development of the whole child. Elementary school art teacher two (P12) and elementary school art teacher three (P13) credited the visual arts in the development of a student becoming a creative and well-rounded person. The high school principal (P4), elementary school principal one (P6), and elementary school principal two (P7) also credited the visual arts for helping students to find their strengths and connecting them to other opportunities that inspire and provide growth in a variety of ways. Elementary school principal one (P6) explained, "When kids like coming to school every day, and there's something they connect with and are like-minded, I feel that helps them academically and in other areas." Also, the elementary school art teacher two (P12) maintained the opportunity to use the right side of their brain and move around in the visual arts classroom enables students to function much better in school. Furthermore, both elementary school principal one (P6) and elementary school principal two (P7) discussed the utilization of their respective art teachers in their schools' Response to Instruction and Intervention (RTII) and Student Assistance Program (SAP) teams to connect and mentor struggling students that have an affinity for the visual arts.

Relating to the concept of the whole child, elementary school principal two (P7), elementary school principal three (P8), and elementary school art teacher two (P12) recognized the value of the visual arts in the development of fine motor skills. The participants noted the trend of diminishing fine motor skills in primary age students. Elementary school principal three (P8) explained in general, the increase of time on electronic devices has resulted in time away from coloring for younger students. The participant further explained the fine motor piece of the visual arts has increasingly become more important because the use of electronic devices is replacing coloring in the core content classes. The use of electronic devices for instructional purposes is preferred; however, the time allotted to the visual arts remains essential to the development of fine motor skills.

The superintendent (P1) summarized the purpose of the visual arts from a central office perspective by stating,

> It is a core component of what we believe that is important for all students. Our curriculum director, assistant superintendent, and myself have this passion about the importance of the arts as it relates to curriculum and design, and the experience of our students. It is almost on all of our agendas on a regular basis when we are talking about our core academic program. It is just part of who we are as a leadership team.

The curriculum director (P3) explained that the central office administration recognizes the value of the visual arts now more than ever. The assistant superintendent (P2) supported these perceptions by indicating that within the past two years, the central office redesigned the district's conference room to display student artwork, reinstated the

district's kindergarten through grade 12 art show and launched a partnership with the AEC. Also, allocation of financial resources, time for teachers to complete the work, and professional development to the visual arts demonstrate that school administrators value the program.

The superintendent (P1) perceived the principals' perceptions relative to the purpose of the visual arts, as they understood the impact the arts have on an educational program. The superintendent (P1) maintained the district was fortunate to have principals that support the district's vision and they were critical to executing the vision. Their commitment to supervising and guiding art educators are on par with the other content area departments. The assistant superintendent (P2) indicated the principals were very child-centered and understood the importance of a well-rounded, focused, and responsive developmentally appropriate school. As a result, they recognized the importance of the visual arts in a public school. They are committed to providing instructional leadership in the visual arts. The curriculum director (P4) described the principals' perceptions of the visual arts as being traditional regarding instructional practices and course offerings.

The superintendent (P1) perceived the art teachers' perceptions relative to the purpose of the visual arts as being "passionate." The superintendent viewed the art teachers as being a core component of the educational program. The assistant superintendent (P2) explained the art teachers recognized the importance of the visual arts to the central office administrators. The curriculum director (P3) noted the perceptions of the art teachers were similar to the principals' perceptions in that the

course offerings are traditional with pockets of the element of design incorporated with entrepreneurship.

The superintendent (P1) indicated teachers in the district have a high appreciation for the art teachers and their quality of work with the students. The assistant superintendent (P2) explained most teachers in the district recognized the importance of the visual arts. In general, teachers understood the public display of student artwork and performances are a direct reflection on the visual arts teachers. Teachers understood the students and visual arts teachers are appealing and performing to a broader audience beyond the classroom; however, under the current teacher effectiveness model, the participant was not sure the other educators hold the visual arts to the same esteem as the core content areas. Perhaps this mindset is because the other educators' effectiveness as educators ties closely to the standardized testing results. Overall, the participant maintained the teachers as a whole are very collegial and understand that they are all on the same team with a role in the educational process. The curriculum director (P3) indicated that most educators did not have the same vision for the visual arts because there has not been an opportunity to bring educators together to do visioning regarding a kindergarten through grade 12 visual arts program.

The principals perceived the central office administrators as having passion and valuing the visual arts. They referenced the central office administrators' initiative to implement the AEC self-assessment study to improve curricular design, critical thinking, and creative skills. Also, they indicated the central office administrators value the role of the visual arts in educating the whole child. They perceived the visual art teachers as being passionate about their educational practice as well as their individual artistic

practice. The high school principal (P4) explained their art teachers believe that all students have the ability to be creative, and it is their job to help them develop that ability. Furthermore, the participant explained the value of their teachers' willingness to work with every student and the teachers' ability to identify each students' point of entry so they can grow them as an artist. The middle school principal (P5) recognized the initiative of the visual arts teacher who developed screen-printing as a new art elective. Elementary school principal two (P7) maintained that all three elementary art teachers strive to make their program an integral part of the school. Overall, the participants indicated most teachers value the importance of the visual arts by providing students opportunities for creativity. The middle school principal (P5) indicated some teachers might not see the value due to the importance of high-stakes testing. Lastly, they characterized their own perceptions regarding the purpose of the visual arts as similar to the central office administrators in that there is a commitment to support and create opportunities to help students hone their creativity, critical thinking, and problem-solving abilities as well as increase opportunities for engagement and exploration.

The visual arts teachers perceived the central office administrators as valuing, supporting, and emphasizing the visual arts. They recognized the central office administrators' initiative to bring the visual arts to the forefront by partnering with the AEC, providing time to prepare the district's kindergarten through grade 12 art show, encouraging new curricular opportunities, budgetary support, and time allotted to the visual arts at the elementary level. Elementary school art teacher three (P13) indicated the 55 minutes per week allotted at the elementary level is rare and speaks to the central office administrators' value of the visual arts. Also, they also perceived the principals as

being supportive regarding new courses and providing the budget to sustain the program. The high school art teacher (P9) noted the high school principal understands the importance of offering a variety of curricular options and offering courses that delve deeper into a specific media.

Overall, the visual arts teachers indicated other educators as being complimentary, appreciative, and willing to collaborate. The high school art teacher (P9) expressed that, at times, an art class fills a student's schedule. As a result, the participant perceived that other educators valued core content classes over elective courses. Elementary school art teacher three (P13) maintained other educators value the time students spend in art class. The participant explained students remain in art class rather than leave to take tests and make-up missed work. Additionally, they perceived other educators valuing the visual arts more because the increase of standardized testing has reduced creative and problem-solving skills. Lastly, the visual arts teachers described their perceptions regarding the purpose of the visual arts as being critical and relevant to student success.

**Theme 4: No negative impact of educational mandates on the visual arts program.** Nine of the 13 participants indicated educational mandates had not had an impact on the ability to implement a kindergarten through grade 12 visual arts program. The curriculum director (P3) noted educational mandates had not affected programming in the visual arts. Due to Keystone testing requirements concluding for most students by the 10th grade, the high school principal (P4) explained state assessments had not prohibited a student from taking elective courses. Elementary school principals two (P7) and three (P8) indicated educational mandates had not had a negative impact on elementary programming in the visual arts program. Regarding state-mandated

summative assessments, both principals emphasized the importance of developing well-rounded learners as opposed to teaching to state-mandated exams. Elementary school principal one (P6) explained educational mandates had not impacted the reduction of visual arts programming and, if anything, had required the teaching staff to look more closely at facilitating cross-curricular connections through the visual arts.

The high school art teacher (P9), middle school art teacher (P10), and elementary school art teacher one (P11) indicated that educational mandates had no impact on the visual arts program. Elementary school art teacher three (P 13) explained they had been asked by colleagues to incorporate items in their instruction related to the state assessments; however, they have not been required or pressured to do so on a regular basis. Also, multiple visual arts course offerings listed in the high school's program of studies reflects educational mandates have not negatively impacted the arts. These offerings include (a) Introduction to Contemporary Crafts, (b) Contemporary Crafts II, (c) Drawing and Painting I, II, III, (e) Ceramic Sculpture I, II, III, (f) Metals and Jewelry I, II, III, and (g) AP Studio Art. The middle school program of studies indicated the offering of visual arts for seven and a half weeks at each grade level.

The superintendent (P1) maintained the impact of educational mandates on curricular programming is in the "eye of the beholder." The participant explained the sole consideration of the testing mandates outlined in the educational reform acts of No Child Left Behind (NCLB) and currently, Every Student Succeeds Act (ESSA) by a school leader, is a limited perspective. Furthermore, students can meet those mandates when intentional implementation of the visual arts, creativity, project-based learning, and complex learning experiences accompanies the appropriate level of rigor. Moreover, the

achievement of success on state assessments occurs by creating an expectation for students to acquire and master content along with providing holistic learning experiences that go beyond the prescribed eligible content. Merging these practices will enable students to meet both the mandates as well as develop into creative and critical learners.

The superintendent (P1) proceeded to indicate the challenge for school districts with similar demographics is accessing the funding to meet the educational mandates as well as implement a quality visual arts program with limited financial support from the state and the federal government. The participant continued to indicate,

> We are doing a lot of this, unfortunately, on the backs of our local taxpayers because we have been flatlined funded for eight or nine years. The community has stepped up, and they have said, "We believe in it, and we are going to support it." I give our board and community a lot of credit to continue to support this work we are doing.

**Category 2: Roles of District Personnel**

Participants responded to a series of questions relating to their roles in the implementation of the visual arts program. Participants also described how their roles have evolved during their tenure in the district. Also, participants described their strategies for implementation and sustainability along with obstacles they encounter in their respective roles.

**Theme 1: Roles of the teacher in the implementation and sustainability of the visual arts.** The visual arts teachers provided a variety of descriptions regarding their roles in the implementation of the visual arts and the evolution of their roles during their tenure in the district. The high school art teacher (P9) noted the importance of their

role in displaying art. The participant explained they participate in the district's community art show as well as the senior art show and assist in the selection of a senior's piece of artwork added to the high school's permanent art collection. Furthermore, the participant also indicated in addition to their role as a visual arts teacher; they serve as a performing arts teacher as well as the theater and technical director for the high school's plays and musicals. The participant explained they have evolved in their role by being able to establish a better rapport with their students. They have also been proactive in designing and proposing courses to the school board for approval.

The middle school art teacher (P10) described their role as the "art cheerleader." They added their role was to encourage every student to recognize their capability to create something relative to the arts and to inspire students to continue their pursuit of art. The participant explained they have become more active in writing curriculum and creating opportunities for students to display artwork in the building.

In addition to teaching elementary art, the elementary school art teacher one (P11) also teaches one middle school visual arts course. The participant viewed their role as promoting and implementing the use of technology in the making of art as well as linking art to entrepreneurship opportunities. The participant also noted their role in curriculum writing and development using Understanding by Design (UBD) (Wiggins & McTighe, 2005) curricular framework. The participant further indicated their openness to STEAM activities and serving as the department liaison for factors influencing the implementation of the visual arts. The participant explained they inherited a middle school art course that focused on the fiber and craft arts. In the second year of their tenure, they redesigned the

course to center on printmaking and ceramics. The course titled, Design Create Use, is intended to teach the students about the creation of functional art.

Elementary school art teacher two (P12) also noted their role in the district's community art show, curriculum writing with the UBD curricular framework and implementation of STEAM activities. In addition to their role as an elementary art educator, the participant serves as their respective building's enrichment facilitator. Through this role, the participant conducts benchmark testing, attends data team meetings, and communicates with parents. The participant explained their role evolved the most in the area of integration of STEAM into their lessons. The participant further added they are using iPads, the electronic invention tool, Makey Makey, and the electronic building platform, Little Bits, to create art. Elementary school art teacher three (P13) described their role as their respective building's visual arts teacher. Furthermore, the participant also noted their role in curriculum writing and development.

The participants described multiple strategies for implementation and sustainability of the visual arts program. The high school art teacher (P9) explained the rebranding of courses and establishing relevance as strategies for both implementation and sustainability. The participant indicated periodically refining and offering new courses enhances the program's liveliness. The participant added, "Introducing students to media such as printmaking or working with mosaic keeps the program full of vitality." The participant also noted the marketing of the visual arts to students that are unsure of taking an art course as a key strategy for sustainability. They stated, "I'm always looking to bring new students into the fold." The participant also added they meet with eighth-grade students before selecting their high school courses as a way to promote the visual

arts department as a viable choice. The middle school art teacher (P10) also noted the importance of refining courses for the purpose of relevance as a critical strategy for sustainability.

Elementary school art teacher one (P11) explained their strategy of accessing the organization Real-World Scholars to financially and logistically assist in the implementation of Ed-Corps which is the organization's student-run business program. Elementary school art teacher two (P12) explained they implement the visual arts through constructive activities that are exploratory and allow for creative freedom. Elementary school art teacher three (P13) explained the development of relevant, age-appropriate projects that allow for multiple outcomes, and exposure to multiple forms of media as core strategies for implementation. The participant also noted displaying the visual arts through district publications and assisting with the district's art show as strategies for sustainability.

The visual arts teachers identified obstacles they encounter in the implementation of the visual arts and strategies for overcoming those obstacles. The high school art teacher (P4) identified the perception in a high-performing school district of advanced placement courses being valued more than other elective courses as an obstacle for implementation and sustainability. The participant acknowledged the benefits of taking advanced placement courses; however, maintained the heavy emphasis on scheduling these courses hinders students' flexibility to take elective courses in the arts. The participant added talented students come to them in their senior year indicating that due to the scheduling of advanced placement courses, they have never had room in their schedule for an art elective. The participant explained they overcome this obstacle by

identifying students earlier in their high school career and assisting them in the mapping of their artistic goals.

Elementary school art teacher one (P11) noted time, the multiple levels within the chain of command in a public-school system, and the art teachers not being centralized as obstacles to implementation. The participant indicated they overcome those obstacles by utilizing Google Docs to create a collaborative space for the art department as well as email, and group text. Elementary school art teacher two (P 12) added the obstacle they most encounter is having students work through their failures to create viable artwork. The participant described overcoming this obstacle by conferencing and teaching students how to work through their mistakes. Elementary school art teacher three (P13) indicated the master schedule as an obstacle to implementation. The participant explained due to scheduling being "days of the week" and not a "rotational" schedule, students could conceivably have less time for art if school is not in session more frequently on a certain day of the week. The participant explained they overcome this obstacle by utilizing instructional time as efficiently as possible.

**Theme 2: Support roles in the implementation and sustainability of the visual arts.** The central office administrators and building principals provided descriptions of their roles in the implementation of the visual arts and the evolution of their roles during their tenure in the district. The superintendent (P1) described their role in the implementation and sustainability of the visual arts as the lead learner who demonstrates by actions and words the importance of the arts. The participant added that the role provides the opportunity to articulate continuously to the public and school board the components of the arts that are important to the district. The participant maintained the

importance of investigating and reflecting on current practices as well as identifying areas of growth.

The assistant superintendent (P11) described their role in the implementation of the visual arts as a "project manager." The participant explained they spent the first year of their role learning the capacity of people and mapping the district. The participant added that the second year was spent on intensive hands-on work with the AEC and planning the district's kindergarten through grade 12 art show. Additionally, the participant explained due to the superintendent and themselves having similar backgrounds, it was important for the AEC to facilitate the self-study of the visual and performing arts programs because they could not depend upon themselves to complete the audit internally. Furthermore, the participant emphasized the importance of visiting other districts and educational practices relative to the implementation of the arts. Lastly, the participant indicated their role in the implementation of the visual arts for the upcoming school year depended upon the recommendations from the AEC self-study.

The curriculum director (P3) explained their role in the implementation of visual arts is from a kindergarten through grade 12 perspective. The participant added a significant aspect of their role was to anticipate future programmatic needs. The participant noted they foresee themselves working as a liaison between the AEC and district in the implementation of the programming recommendations from the self-study. The participant explained, pending the results of AEC study, they anticipated their role evolving into assisting the visual arts teachers in reshaping the kindergarten through grade 12 curriculum visual arts curriculum.

The high school principal (P4) explained their role in the implementation of the visual arts is to champion and support the teachers' new ideas and their professional development. The participant noted they assist teachers by identifying objectives and aligning standards as well as connecting them to outside agencies. The participant further explained they support the visual arts by working and developing strategies with students to identify locations to display student artwork appropriately. Additionally, the participant described the evolution of their role in the implementation of the visual arts from a former English teacher in the district to the high school principal. From a teacher's perspective, the participant described the importance of art as it related to the study of literature. They noted it was important for students to understand how its people, as well as political and social factors, influenced the artwork of an era. As a building principal, the participant explained the importance of helping the visual arts teachers connect with professors and artists to develop their skills further.

The middle school principal (P6) described themselves as a lead person in the implementation of the visual arts. The participant acknowledged their influence in determining the framework of the program and the importance of developing the framework in conjunction with the curriculum and the middle school art teachers. Additionally, the participant described the evolution of their role in the implementation of the visual arts as the former middle school assistant principal to the middle school principal. The participant indicated that as the middle school assistant principal, they had little input into the curricular decisions, however as the middle school principal, they have become active in developing curricular changes, writing a grant with an art teacher

to secure funding for a screen-printing studio, and reorganizing the budget to allocate additional money to the visual arts program.

Elementary school principal one (P6) explained their role is to support the visual arts program by building a master schedule that allows the appropriate amount of time for implementation, assist in the districts' kindergarten through grade 12 art show, and arranging parent volunteers. The participant noted they worked with the previous art teacher in adjusting the master schedule to enhance logistics and efficiency within the visual arts classroom. The adjustments eliminated the need to shift continuously between mediums for every class period by scheduling the upper elementary grades in the morning and the primary grades in the afternoon. Elementary school principal (P7) two also described their role as supportive of student creativity through the implementation of the visual arts program. The participant noted that as the district's former curriculum director, they emphasized the importance of identifying the sequence of skills as described in the state and national standards and assessments that were not formulaic.

Elementary school principal three (P8) explained their role in the implementation of the visual arts was to ensure that time is set aside for art as well as every student is scheduled for art. The participant indicated it is important they make the students aware the arts are as important as their content classes. Also, the participant discussed the importance of supporting the art teacher's preparation by providing adequate time to prepare as well as identifying professional development that targets the teacher's needs. The participant emphasized that support for the program demonstrates support for the teacher. Lastly, the participant explained the evolution of their role consists of creating structures that enable people to do their best work.

The superintendent (P1) indicated the commitment in the district budget to support the visual arts as a significant factor regarding implementation and sustainability. The participant also emphasized the importance of visually displaying student artwork to demonstrate the district's belief that the visual arts are an essential part of the educational experience. Thus, the district office's conference room is used to display student artwork from all grade levels. Also, there is a plan to display photographs of students engaged in the arts throughout the hallways. The participant explained,

> One of the things we are going to do through our hallways is that we are going to have photographs of our students engaged in the arts. I see this a lot over at our field house, and our stadium has some great shots of athletes doing all kinds of exciting things. I said we need the same vision here. So, we do have our posters of the arts, academics, athletics, and innovation showing our students in action doing those things in our reception area. We are going to do that through all the hallways and have more explicit shots of individual students doing work with the visual arts.

Regarding the sustainability of the visual arts program, the assistant superintendent (P2) explained strategies for connectivity and sustainability of district initiatives and programs are always an area of need. The participant maintained the importance of not delegating the work to one person but rather approaching those initiatives and program sustainability as a team. Moreover, the curriculum director (P4) noted the use of grant funding to create and support educational spaces for the visual arts as strategies for implementation and sustainability.

Additionally, the high school principal (P4) explained the importance of communicating with the art teachers to keep abreast of the scientific improvements with visual arts materials and to plan for the professional development in the use of those materials. The participant noted this as being an important strategy to allow the appropriate amount of funds for professional development in the following year's budget. Also, the middle school principal (P5) and elementary school principals two (P7) and three (P8) identified open communication with the art teachers and hiring practices as essential strategies for implementation and sustainability.

The central office administrators and principals identified obstacles they encounter in the implementation of the visual arts and strategies for overcoming those obstacles. The superintendent (P1) noted the balancing of finances is always an obstacle. The participant further stated, "When folks are asking for new textbooks and the art educators are asking for materials and resources and kilns that have the same level of importance that means making some tough decisions at times." However, the participant also added,

> In this district, we are so fortunate that our board and our community has never wavered on the financial budgetary commitments to the arts. That is just how they believe. They have maintained that commitment. We are so fortunate that it is part of the culture here.

The participant explained the most effective strategy for having stakeholders understand the value of the visual arts is for students to demonstrate and display their artwork. The board frequently invites students to school board meetings where they demonstrate their work. Also, the participant noted, the district's kindergarten through

grade 12 art show, and days designated to display innovations are opportunities to demonstrate and exhibit student work to the community. The participant explained the innovation day is a district-wide event that highlights the infusion of technology into the visual arts.

The assistant superintendent (P2) also noted working with finite budgets and constructing a program that is reflective of the mandates, standards, community, and needs of the students is a challenge. The participant explained that recently it became a top priority to develop comprehensive kindergarten through grade 12 mental health and school safety programs. Additionally, ever-changing business platforms and student walkouts have emerged as obstacles to implementing educationally sound programs. To overcome these obstacles, the participant noted the importance of being flexible in evolving with the mandates and values of the community.

The curriculum director (P3) indicated space and funding as obstacles to the implementation of the visual arts. The participant noted the commitment of the superintendent and assistant superintendent to providing a quality arts program by their overall commitment to the arts as well as their investment in contracting the AEC to facilitate the self-study of the district's arts programs. The participant noted the pursuit of grant funding and the superintendent and assistant superintendent's vision for the arts as essential factors in driving the arts program.

The high school principal (P4) identified the perception of parents of high achieving students valuing science and math electives more than the visual arts as an obstacle. The participant noted this obstacle typically emerges when the student is artistically talented and identifies the alignment of art to a profession not viewed in the

realm of art. The participant explained that to overcome this obstacle, communication with parents regarding the purpose of art courses within the curriculum is essential. The middle school principal (P5) explained the offering of additional visual arts courses requires more staff; and thus, affecting the budget. The participant overcame this obstacle by communicating with the central office administration regarding personnel needs. Elementary school principals one (P6) and three (P8) indicated the limitation of time as an obstacle. Elementary school principal three (P8) also noted creating structures to support the visual arts teachers and keeping the visual arts in the forefront as challenges in the implementation of the visual arts.

**Category 3: Practices and Characteristics of a High-Performing School District**

Participants responded to a series of questions relating to the school district's practices and characteristics in the implementation of their kindergarten through grade twelve visual arts program. The participants described the curricular framework as well as common instructional and assessment practices. The participants also described the integration of the visual arts into the performing arts as well as the core subjects of math, science, history, and English. Also, the participants identified practices that are most valuable in enhancing teaching and learning and lead to high-performance on standardized assessments. Moreover, the participants described practices and roles relating to the purposeful integration of the visual arts. Lastly, the participants explained the basis for the district placing a high priority on the visual arts and to identify the different practices and characteristics that drive the program.

**Theme 1: Instructional practices and characteristics.** A goal outlined in the district's strategic plan is to support transformative teaching and learning to promote

collaboration, communication, critical thinking, and creative problem-solving. Twelve of the 13 participants identified creativity, the ability to see multiple perspectives, problem-solving, and student collaboration as components of the design of instructional practices. The assistant superintendent (P2) explained through these instructional practices, teachers develop opportunities to become facilitators of personalized learning based on the students' readiness, interest, and motivation. As facilitators, teachers place a high premium on the overarching skills of creativity, problem-solving, and collaboration. The participant added developing these skills in the visual arts classroom enhances cross-curricular opportunities in math, science, English, and social studies.

The superintendent (P1) noted instructional practices at the elementary level have shifted from being "formulaic" to promoting creative independence. Elementary school principal two (P7) described elementary school art teacher one's (P11) integration of the Makerspace mentality where the visual arts provide opportunities for problem-solving, creativity, and cross-curricular connections. Elementary school art teachers one (P11) and two (P12) indicated the emphasis on critical thinking, creation, and exploration rather than consumption are focal instructional practices. Both participants also noted lesson design usually consists of demonstrating and providing directions, creating and exploring, and spending the time to reflect. Furthermore, elementary school art teacher one (P11) identified the use of STEM-based projects to excite and engage students has been a long-standing visual arts instructional practice. Lastly, the participant indicated a common elementary instructional practice is to expose the students to as many media as possible, so they have a sound foundation in the visual arts as they advance to the middle school.

At the secondary level, the high school art teacher (P9) described their instructional practices as individualized and being "hands-on." The participant emphasized the importance of being mobile and observant. The participant stated,

> You can't be afraid to get paint on your clothes and work with the kids. Some kids are going to pick things up right away. Some are going to be struggling along just like with any other content area, and you have to really be observant. You have to be ready to pick up on it because if a kid figures I can't draw, they will eventually check out, and you'll have lost them. You have to reel them back in. You really have to be mindful of where they are in the process.

The participant also explained the use of three-dimensional examples for students to touch and reference and the modeling of artistic techniques as core instructional practices. The participant stated, "I'll throw on the potter's wheel right next to the kids so they can see I can do this and so can you." The middle school art teacher (P10) also noted modeling the use of tools and materials as a common instructional practice.

The curriculum director (P3) identified "student voice and choice" as a fundamental practice of the district's visual arts teachers. The participant perceived this practice as having a significant impact on student achievement with more usage across other disciplines. Both the middle school principal (P5) and the elementary school principal one (P6) indicated student voice and choice had become a prominent instructional practice in giving students ownership in the design and creation of projects.

The high school principal (P4), elementary school principal one (P6), and elementary school art teacher three (P13) noted student collaboration in the form of peer feedback as a common instructional practice. The high school principal (P4) explained

students are to write an artist's statement to compare to the peer feedback. The practice enables students to develop critiquing skills as well as presentation skills. Elementary school principal one (P6) noted that elementary school art teacher three's (P13) use of Gallery Walks is an example of a collaborative strategy. Elementary school art teacher three (P13) explained the activity of Grow and Glow as a way for students to collaborate in providing targeted feedback during the middle of a project. Grow and Glow consists of an area of artistic strength and an area of improvement provided to the artist by their peers. The intent of the activity is for the artist to consider their peer's feedback as a way to improve the finished product. Also, the curriculum director (P3) indicated the utilization of "coaching" as an instructional strategy to move student artwork forward. Lastly, the elementary school art teacher two (P12) noted the use of teacher-made videos as an alternative to demonstrating artistic techniques and providing directions.

The district's professional development plan indicated the need for teachers to develop instructional pathways with various levels of complexity and relevance so that students are intellectually engaged in the learning process. The participants noted multiple areas in which instructional practices have evolved within the district. The superintendent (P1) indicated teachers themselves providing feedback and critique to each other regarding instructional practices, and curricular alignment has been a new development. The curriculum director (P3) and elementary school art teacher two (P12) noted the trend of art extending beyond the art classroom through the development of a STEAM-based approach to instruction. Similarly, elementary school principal one (P6) and elementary school art teacher one (P11) indicated the push to leverage technology to create art as an ongoing development in the visual arts classroom. The high school

principal (P4) indicated the increase of student autonomy regarding the ownership of their ideas as well as a student-centered approach to instruction had improved student morale. Also, the participant indicated the requirement for students to pre-plan and show evidence of forethought before creating art has become more evident within the instruction of the visual arts. The middle school principal (P5) and elementary school principal two (P7) respectively noted an increase in student choice and the development of more consistent, authentic learning opportunities. The high school art teacher (P9) explained the evolution of strategies to assess creative thinking has grown through the development of structured and aligned rubrics. Lastly, elementary school principal three (P8) maintained the AEC's recommendations would provide more explicit instructional practices and defined professional development to support those practices. Also, the participant anticipated more frequent artists' visits and defined guaranteed learning experiences across all buildings as the direction for future visual arts instructional practices.

In support of enhancing instructional practices, the curriculum director (P3) indicated their participation in the CLAE Leadership Academy was valuable in teaching the administrators strategies for supporting instruction in the arts. The participant explained the training consisted of helping teachers develop quality Student Learning Objectives (SLO) that are specific to arts instruction. Additionally, the participant learned how to provide quality and targeted feedback specific to art educators regarding their SLO and following an observation.

The middle school principal (P5) summarized the impact of the visual arts on the district's instructional practices by indicating the visual arts teachers' strategies for

student engagement align to best practices by fostering the 21st-century skills of creativity and collaboration. Moreover, the superintendent (P1) explained the district's visual arts instructional practices seek to promote high levels of engagement through having the students involved directly in the design process and by instilling high expectations of constructivism. Furthermore, the participant maintained the design of instructional practices in the visual arts is critical to developing the intellectual dispositions of persistence, creativity, wonder, and awe. The participant added that intentionally instilling the previously mentioned skills and practices would enable the integration of the habits of mind into the students' thinking carrying them well beyond the content. Moreover, academic standards should not be the only factors when designing units of study. Instead, the design of instructional practices should foster the intellectual dispositions that are essential to solving real-world problems.

**Theme 2: Assessment practices and characteristics.** The district's professional development plan described the need to develop authentic assessments that require students to demonstrate conceptual understanding and transferability of knowledge and skills through their performance. The superintendent (P1) explained the importance of designing rigorous assessments that extend beyond content recall by incorporating the authentic problem-solving skills of application, analysis, and design. Moreover, the participant characterized the district's art teachers as leaders in the development and implementation of authentic project-based assessments. The participant added that the district utilizes the curricular framework Understanding by Design to create units of study and assessments for all content areas. Understanding by Design is a backward design process that determines learning outcomes first to guide curriculum, assessment, and

instruction (McTighe & Wiggins, 2012). Through this process, teachers have collaborated to develop performance-based assessments that require students to demonstrate their understanding at a deeper depth of knowledge. The participant noted the importance of leveraging the art teachers' expertise in assisting content area teachers in the design of performance-based assessments. Evaluation of the project-based assessments occurs through specific criteria listed in the form of a rubric.

A review of a variety of rubrics include evaluative criteria, self-assessment, and teacher assessment components as well as checklists (Appendix L) . Eleven of the thirteen participants identified rubrics as the most common assessment practice. The high school principal (P4) explained thorough rubrics evaluate artistry, skill, and technique competencies, and creativity against specific criteria. The participant added, "Students will tell you the process is taken very seriously." The high school art teacher (P9) explained the students receive the rubric at the beginning of the unit to know the evaluative criteria. Rubrics consist of simplistic terms so all students can understand the expectations. Moreover, teachers refer students to the rubric frequently to self- assess their progress and to identify areas of improvement. At the completion of the project, students complete a self-assessment, and the teacher returns a completed assessment on the same rubric to the student to review. Students seeking clarification regarding their grade are encouraged to speak with the teacher. In addition to the rubric, the middle school art teacher (P10) and elementary school principal three (P13) ask the students to write an artist statement as a way to understand the students' thoughts relative to the artwork.

In addition to rubrics, the high school principal (P4) noted peer review, sketchbooks to document ideas and prototyping as well as vetting ideas with their peers and teacher as additional assessment practices. Elementary school art teachers one (P11) and two (P12) indicated the use of observation as an assessment strategy. Elementary school teacher one (P11) identified the use of student portfolios as an assessment tool to track student learning and as a way to share the students' work with their families. Elementary school art teacher three (P13) also noted the use of simplistic rubrics that include self-assessment and teacher assessment components. Lastly, the participant maintained the importance of assessing in the middle of the project with the frequent use of the Grow and Glow as a way to ensure student growth through the artistic process. A review of the four-step Grow and Glow template confirmed the use of the formative assessment between classmates at the mid-point of a project.

**Theme 3: Curricular practices and characteristics.** The curriculum director (P3) indicated that the use of the curricular framework Understanding by Design (Wiggins & McTighe, 2005) had been the primary tool to design instruction and assessment across the district. Included in the district's strategic plan is a description of the implementation as well as a timeline for the creation of Understanding by Design units. The superintendent (P1) explained that Understanding by Design begins by identifying the knowledge and competencies for students to attain. Development of the unit plans include the learning plans, activities, and assessments necessary to build understanding and transference of skills to other areas of study. The participant emphasized the importance of not creating units of study based solely on academic standards. Moreover, the units of study need to include the instructional practices that

foster the intellectual dispositions that are critical to solving real-world problems. The participant further maintained that the nature of the visual arts media allows art teachers to lead the way in curricular and assessment backward design. The superintendent (P1) and high school principal (P4) noted through the backward design process art teachers initially identify the desired results before constructing learning activities.

School board policy requires alignment in the arts and humanities with the academic standards. The assistant superintendent (P2) and elementary school art teachers two (P12) and three (P13) indicated overall that the kindergarten through grade 12 visual arts curriculum aligns to the state standards. Also, the assistant superintendent (P2) stated, "Teachers have a decent amount of creative license in how they implement the standards." However, elementary school art teacher three (P13) indicated that the process of revising the curriculum has been challenging and the teachers were having a difficult time envisioning the curricular framework. Elementary school art teacher one (P11) explained there was a general scope and sequence that outlined the elements, principles, and expected level of mastery at each grade level. Furthermore, the high school art teacher (P9) and elementary school art teacher three (P13) noted the elementary, middle school, and high school visual arts teachers collaborated regarding the scope and sequence relating to the artistic elements and principles. Elementary school art teacher one (P11) indicated the scope and sequence framework maintained cohesion within the visual arts department; however, the participant described the visual arts curriculum as "patchwork" and noted the need for further development.

The high school principal (P4) indicated that visual art course outlines at the high school, as well as the alignment of the instruction to the assessments, existed; however, a

complete curricular framework was not in place. Similarly, elementary school principal one (P6) also indicated the district's visual arts teachers developed a scope and sequence for kindergarten through grade 12; although, from their perspective, the curriculum framework resembled a syllabus rather than a detailed framework. Lastly, elementary school principal three (P8) and the middle school art teacher (P10) noted the absence of a defined curricular framework for the visual arts.

The assistant superintendent (P2) explained the district's curriculum director and visual arts teachers utilized the art standards to identify complex problem-solving and transfer skills during the 2016-2017 school year. The curriculum director (P3) indicated the utilization of the standards identified the big ideas that guide the kindergarten through grade 12 visual arts curriculum. The participant noted the intent was to create a systemic approach to curriculum development by dividing the essential understandings according to primary, upper elementary, middle school, and high school levels. The curriculum director (P3) explained that through this process they developed "beautifully written transfer goals that defined how students should be valuing and engaging with the visual arts from a kindergarten to grade twelve perspective and beyond graduation."

The assistant superintendent (P1) maintained there are some cross-curricular opportunities in the district; however, particularly at the secondary level, the curriculum remained in silos. The curriculum director (P3) noted the district's curricular practices most impacted by the visual arts are the cross-curricular opportunities provided through a STEAM approach. The participant cited the implementation of screen-printing in a middle school art class as an example of the integration of the arts into other curricular areas. Elementary school art teacher one (P11) explained this integration came to fruition

through a partnership with the San Diego, California based company, Real World Scholars. Through the company's educational corporation program, Ed-Corps, teachers can create student-run businesses. The participant utilized nominal funding and logistical support from Real World Scholars to develop a screen-printing business within an eighth-grade visual arts class. The participant stated,

> This is bringing in a completely new curricular direction that I think is really going to grow. Other teachers in the district have taken an interest in doing more project-based learning with that in mind, and this is being led by the arts.

From a high school perspective, the high school principal (P4) perceived the visual arts curriculum as being an essential component in offering a holistic program. The participant viewed the visual arts program as not being a separate entity from other curricular areas but rather as a factor in balancing the students' learning experiences. The participant explained when students are in Biology studying cells; they have to understand the cell's spatial integrity, design, and function. They may not realize; however, that they are studying the cell through an artistic lens. This process is more implicit than explicit; regardless, everyone recognized it as part of the bigger picture.

The assistant superintendent (P2) explained that the bulk of the curriculum writing was on hold for the 2017-2018 school year due to the AEC study and the revising of the district's kindergarten through grade 12 art show. Due to the importance of the AEC study, coupled with the time and preparation required to conduct the district's arts showcase, the participant indicated they did not want to overload the visual arts teachers; therefore, curriculum writing halted. The participant added that they anticipated curricular recommendations from the AEC study and this will require the development of

an action plan for curriculum development in the 2018-2019 school year. Multiple participants noted the findings and recommendations from the AEC study would determine the course of action for revising and enhancing the district's visual arts curriculum.

**Theme 4: Integration of the visual arts.** Six of the 13 participants indicated the purposeful integration of the visual arts with the performing arts (music, drama, and dance) occurred mostly at the middle school and high school levels. The superintendent (P1) explained the best integration of the visual arts with the performing arts occurred in the student-produced plays and musicals. The participant further explained that the middle school productions were open to all students and embedded into the culture of the school. The superintendent (P1) and the high school art teacher (P9) maintained the natural integration of the visual and performing arts occurred primarily in set design. The high school art teacher (P9) explained that the experience for two-dimensional art students transitioning from working with canvas or poster board to suddenly painting ten-foot wall sets enabled them to recognize the transference of their artistic abilities outside of the visual arts classroom. Elementary school art teacher one (P11) also noted the integration of the visual arts with the performing arts is best seen in the musical productions with the confluence of set design, acting, singing and the pit orchestra. The curriculum director (P3) indicated the role of the high school art teacher (P9) also serving as the musical and theatrical director aided the integration of the visual arts with the performing arts; however, the bundling of these roles occurred by happenstance. The middle school principal (P5) noted the strengths of the middle school's Spring play and

Fall musical as well as the music program; however, the participant identified the purposeful integration of the visual arts with the performing arts as an area of growth.

Overall, participants noted pockets of purposeful integration of the visual arts with the performing arts. In addition to plays and musicals, the assistant superintendent (P2) identified the district's art show and the innovation days as examples of purposeful integration of the visual arts with the performing arts. The innovation days involved the integration of technology and innovation. Through this experience, students had the opportunity to integrate the use of technology with music and the visual arts. Also, elementary principal two (P7) cited the celebration of Diwali in December as an example of the purposeful integration of the visual arts with the performing arts. However, elementary school principals one (P6) and three (P8), as well as elementary school art teachers one (P11) and two (P12), noted the integration of the visual arts with the performing was not strategic and was less concrete than at the middle school and high school levels. Lastly, the curriculum director (P3) maintained that the integration of the visual arts with the performing arts had not previously been purposeful; however, the visual arts and the music teachers recently collaborated to assess their programs and, for the first time, began to integrate the visual arts purposefully with the district's music education program.

The superintendent (P1) indicated the integration of the visual arts with the core subjects of math, science, history, and English as an area of needed improvement for the district. The participant explained that logical connections between the visual arts and core subjects are more apparent when curricular and project-based assessment development occurs within the Understanding by Design framework (Wiggins &

McTighe, 2005). The participant further explained the initiative of utilizing the expertise of visual arts and technology education teachers to collaborate informally with teachers from other content areas provided opportunities for integration. The assistant superintendent (P2) noted there are pockets of purposeful integration of the visual arts with the core subjects and that it occurred more regularly at the elementary level. The curriculum director (P3) indicated the elementary visual arts teachers were aware of what was occurring in the core subjects and tended to make and support interdisciplinary connections more frequently. The participant also noted examples of integration at the high school level; however, overall characterized the integration of the visual arts with the core subjects as not being systemic.

The high school principal (P4), the middle school principal (P5), and the elementary school principal three (P8) indicated there is no purposeful integration of the visual arts with the core subjects. The middle school art teacher (P10) indicated any integration of the visual arts with the core subjects usually occurred informally. Elementary school principal one (P6) characterized the integration as "more craft than strategic." Elementary school principal two (P7) and elementary school art teachers two (P12) and three (P13) indicated the visual arts teachers drove the integration of the visual arts with the core subjects by being aware of the content students were studying in their core subjects. Elementary school art teacher three (P13) explained they regularly integrated measurement, three-dimensional shapes, history, and literature components to serve as a catalyst for artistic creation. The participant also noted that collaboration existed with the library media specialist to develop projects around books about specific artists. Also, the participant explained that participation in a guest author and illustrator's

presentation and the teacher required the students to relate the historical component of the presentation to their artwork.

**Theme 5: Display of art.** A goal outlined in the district's strategic plan is to increase connectivity to community residents who do not have students enrolled in the district to promote positive school community relationships. The high school principal (P4) and elementary school art teachers one (P11), two (P12), and three (P13) indicated that the district's kindergarten through grade 12 art show was a best practice for the display of student artwork. The assistant superintendent (P2) explained the district's art show is a two-day event that showcases the kindergarten through grade 12 visual and performing arts programs. Traditionally, the art show occurred biennially. The event alternated with the technology and innovation showcase; however, the plan is for the event to occur annually. The participant indicated they and the superintendent (P1) had annually experienced innovation days in previous districts. The intent is to continue with the innovation days as well as provide the visual and performing arts students the opportunity to showcase their work annually. During the 2017-2018 school year, the art show became an active and interactive experience for both the students and the audience. Students showcased their skills by actively creating art for the audience. Examples included students throwing on the wheel and having the audience review sketchbooks to demonstrate how art is a problem-solving process. Additionally, student artists served as docents to explain to audience members their thoughts as they moved through the creative process. The participant added pastel canvases were displayed on which the audience could respond to prompts as they exited the show. The prompts read: (a) I went to Hughes and Harmony and I saw, (b) I went to Hughes and Harmony and I felt, and (c)

I went to Hughes and Harmony and I heard or I thought. Lastly, the participant noted the showcase required forethought regarding the audience's flow around the high school as well as developing strategies to engage the audience.

The high school principal (P4) and elementary school art teachers one (P11) and three (P13) noted the value of experiencing the visual arts kindergarten through grade 12 vertical articulation at one event. The high school principal summarized the value of the art show by stating "It gives students and parents the ability to see a K to 12 vertical articulation of what art looks like and it gives them a sense of 'wow' when my student is in high school this is something they can potentially be doing. They are able to see the value in the development of a student K to 12." Elementary school art teacher three (P13) also noted the benefit of the community being able to witness firsthand the growth of artistic abilities as students advance through the program. Elementary school art teacher one (P11) and three (P13) identified the district's art show as a distinctive practice in the implementation of the district's kindergarten through grade 12 visual arts program. Elementary school art teacher three (P13) explained art showcases usually occurred at the building level and not at the district level. Furthermore, the display of artwork from a kindergarten to grade 12 perspective relays to the community the importance of art in the educational experience.

In addition to the district's art show, the high school principal (P4) shared the practice of displaying art to the community through the high school's art gallery. The participant explained the high school permanently display a collection of selected work in a designated hallway. Through a selection process, students identify a piece of artwork that merits addition to the school's permanent collection. A commission paid to the artist

acquires the piece for the school to add it to the permanent art gallery collection. The participant added that this practice helps students to recognize there is a value to art as well as the arts have a place in society.

**Theme 6: Supporting practices and characteristics in the implementation of the district's kindergarten through grade 12 visual arts program.** The middle school principal (P5) summarized the need to maintain the commitment to support the implementation of the district's kindergarten through grade 12 visual arts program by stating,

> We are obligated to find ways to get students excited about school and empower them to be successful. Everybody has different passions and interests, and for those students who really do gravitate toward the visual arts, it's our obligation to offer a high-quality program. When students feel connected, whether it be to teachers or programs, or a class then they are more likely to come to school, enjoy school, and put forth the effort.

The high school art teacher (P9) and the middle school art teacher (P10) maintained the district's visual arts teachers were a significant factor in placing a high priority in the implementation and sustainability of the visual arts. The high school art teacher (P9) explained the visual arts teachers were passionate and proactive in providing a highly visible and quality program for the benefit of the students. Elementary school art teacher one (P11) added that the district's high quality and passionate art teachers desired to engage students in both creativity and thought throughout the artistic process. The assistant superintendent (P2) supported these perceptions by indicating the teachers were hardworking and child-centered people. The participant added that they never

heard the visual art teachers indicate they were not willing, incapable of doing the work, or that the work was too much. Instead, they proactively sought solutions and completed the work. The participant further indicated teachers were respectful in not asking for extravagant items that would create an inequity throughout other buildings. Also, teachers frequently sought professional development opportunities that were at no expense to the district. Lastly, the participant noted the visual arts teachers were committed to the district's mission.

The curriculum director (P4) and elementary school principal one (P6) indicated the district's hiring process for art teachers as a distinguishing factor in the implementation of the kindergarten through grade 12 visual arts program. The curriculum director (P3) pointed out the district's practice of providing job descriptions that are specific to art educators. The participant explained that teacher job descriptions are usually generic; however, refined job descriptions for art teachers include research-based characteristics of a quality art educator. Elementary school principal one (P6) explained the district has a practice of hiring teachers that possess the passion, dedication, and expertise to bring the program to a higher level. The participant described a rigorous hiring practice that included a series of interviews as well as the teaching candidate providing a demonstration lesson to a team of administrators.

The superintendent (P1) indicated that the community's appreciation and high value for education was a distinguishing factor in supporting the implementation of the district's kindergarten through grade 12 visual arts program. The participant explained the community does not view the arts as frivolous and recognizes that they are an essential component of good schools. Furthermore, a practice of the community

demonstrates its patronage and engagement with the arts outside of the schools by visiting local theaters and museums. The practice of families valuing the arts beyond the schools and having students thrive in artistic experiences aids in building continuous momentum and support for the arts. The high school principal (P4) also recognized parents as providing the means for students to practice and engage in the arts outside of the high school curriculum by providing one-on-one private lessons with practicing artists as a significant supporting factor.

The assistant superintendent (P2) and high school principal (P4) also recognized the community's valuing of the arts as well as their commitment to support the arts fiscally despite limited state and federal funding. The assistant superintendent (P2) added that this value has stayed true and as a result, there are no plans to reduce programming in the arts. The high school principal (P4) noted the community's valuing of the arts empowers the teachers to do their best for the students. Additionally, the assistant superintendent (P2) explained the ability of the district to operate with a fiscally conservative budget and provide a robust kindergarten through grade 12 visual arts program is a core value respected and appreciated by the community. Lastly, the high school art teacher (P9) also identified this core value and as a result, emphasized the importance of visual arts teachers fostering a positive public perception for the arts as an essential practice to the community valuing the visual arts program.

The curriculum director (P3), middle school art teacher (P10), and elementary school art teachers one (P11) and two (P12) credited the superintendent's (P1) and assistant superintendent's (P2) valuing of the arts as being significant to the implementation of the district's kindergarten through grade 12 visual arts program. The

curriculum director (P3) and middle school art teacher (P10) noted both the superintendent's and the assistant superintendent's role in initiating and facilitating the AEC partnership. The middle school art teacher (P10) and elementary school art teacher three (P13) identified both superintendents' and the assistant superintendent's emphasis of the arts in academic growth and development of students, their allocation of funds, appropriate educational space, time, and supplies as factors to the success of the program. Elementary school art teacher two (P12) also noted the superintendents' and assistant superintendent's promotion of the visual arts through the district's website and other media, as well as facilitating the district's art show, as significant supportive practices. Elementary school art teacher three (P13) indicated the central office administration's emphasis and valuing of the visual and performing arts was clear upon their arrival to the district two years ago.

The superintendent (P1) summarized the distinctive practices and characteristics regarding the implementation of a kindergarten through grade 12 visual arts program indicating that there are high expectations and standards for all educators in the district. The participant stated, "If you are a teacher in the district, you are expected to be an excellent educator no matter what you do." The participant added that the internal accountability of teachers and staff holding high standards for each other contributed significantly to the success of the district. The assistant superintendent (P2) also noted the expectation of holding everyone to a high standard of excellence as a factor in the success of the district. The participant noted the expectation of the faculty and staff to attend events, a commitment to lifelong learning, and being responsive to the needs of the students. Elementary school art teacher one (P11) corroborated this expectation by

indicating the district has talented and proud people who desire to be exceptional in athletics, academics, and the visual arts. The assistant superintendent (P2) added that the faculty and staff expect the district's leadership to work as a team, allocate the time, and secure the resources and the talent needed for success. Lastly, the participant indicated the community expects the school district to nurture the students and make sound decisions while being fiscally conservative.

The assistant superintendent (P2) attributed the ability to implement a kindergarten through grade 12 visuals arts program while maintaining high academic performance to teamwork and outstanding teachers that are valued by the principals. The curriculum director (P3) also noted the multiple levels of district personnel working together to improve the program. Additionally, the assistant superintendent (P2) explained the principals' well-balanced support of all academic and extra-curricular programs. Furthermore, the district has spacious facilities, a respectable teachers' contract, and a supportive school board. The high school principal (P) also identified the school board's impact on the visual arts by explaining, the district has been fortunate to have a school board that financially supports the arts. The participant stated the following regarding the school board's support of the visual arts program:

> Art doesn't get cut. Art supplies don't get cut. Art teachers don't get cut, and when you continue to support a program, the community also sees the value in it. This helps kids see the value in it, and it supports our teachers to feel empowered to do right by kids.

The assistant superintendent (P2) further explained that the district has been operating efficiently for quite a long time. Although there have been challenges, the district has not

experienced much unrest. Lastly, the participant concluded with the following regarding the perceptions, roles, and practices of the district's kindergarten through grade 12 visual arts program: "I think the core values are hard work, being fiscally responsible, expecting a lot, and supporting people in that work."

## Analysis

Presentation of further analyzation of the data for this study follows in the responses of each of the participants in each of the emerging themes.

### Category 1: Perceptions of District Personnel

Table 5 displays the number of times each participant provided a comment that was relative to the themes for Category 1: Perceptions of District Personnel. Coding of the interview transcripts revealed 77 subthemes categorized into four overall themes: (a) creativity, (b) collaboration, (c) educational value of the visual arts, and (d) no negative impact of educational mandates on the visual arts program. The theme of Creativity provided a category for 14 of the 77 subthemes. The Collaboration theme provided a category for nine of the 77 subthemes. The theme of Educational Value of the Visual Arts provided a category for 48 of the 77 subthemes. The theme of No Impact of Educational Mandates on the Visual Arts Program provided a category for six of the 77 subthemes. In the theme of Creativity, 13 of the 13 participants provided at least one comment that related to creativity. The superintendent (P1) provided the most comments (27) relating to creativity, and elementary school principal one (P6) provided only one related comment. In the theme Collaboration, 13 of the 13 participants provided at least one comment that related to collaboration. The curriculum director (P3) provided the most comments (13) relating to collaboration, and the middle school art teacher (P10)

only provided one related comment. In the theme Educational Value of the Visual Arts, 13 of the 13 participants provided multiple comments that related to the educational value of the visual arts. Elementary school principal one (P6) provided the most comments (22) relating to the educational value of the visual arts, and the curriculum director (P3) provided the least comments (7). In the theme of No Negative Impact of Educational Mandates on the Visual Arts Program, 10 of the 13 participants provided at least one comment that related to educational mandates having no impact on the visual arts program. The assistant superintendent (P2) provided the most comments (4) relating to educational mandates having no impact on the visual arts program while the superintendent (P1), elementary school principal one (P6), and elementary school art teacher one (P11) did not provide a related comment.

Table 5

*Number of Responses by Participant and Theme for Category 1: Perceptions of District Personnel*

| Theme | Participant | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Creativity | 27 | 18 | 9 | 23 | 10 | 1 | 15 | 9 | 9 | 15 | 16 | 5 | 14 |
| Collaboration | 12 | 11 | 13 | 8 | 8 | 10 | 10 | 5 | 5 | 1 | 9 | 3 | 2 |
| Educational value of the visual arts | 20 | 18 | 7 | 14 | 16 | 22 | 16 | 15 | 11 | 12 | 17 | 18 | 10 |
| No negative impact of educational mandates on the visual arts program | 0 | 4 | 2 | 1 | 2 | 0 | 1 | 2 | 2 | 2 | 0 | 1 | 1 |

**Category 2: Roles of District Personnel**

Table 6 displays the number of times each participant provided a comment that was relative to the themes for Category 2: Roles of District Personnel. Coding of the interview transcripts revealed 52 subthemes categorized into two overall themes: (a) roles of the teacher in the implementation and sustainability of the visual arts program and (b) support roles in the implementation and sustainability of the visual arts program. The theme of Roles of the Teacher in the Implementation and Sustainability of the Visual Arts Program provided a category for 27 of the 52 subthemes. The theme Support Roles in the Implementation and Sustainability of the Visual Arts Program provided a category for 25 of the 52 subthemes. In the theme Roles of the Teacher in the Implementation and Sustainability of the Visual Arts Program, 12 of the 13 participants provided at least one comment that related to the role of the teacher in the visual arts program. The high school art teacher (P9) provided the most comments (18) relating to the role of the teacher and elementary school principal one (P6) only provided one related comment. In the theme Support Roles in the Implementation and Sustainability of the Visual Arts, 13 out of the 13 participants provided at least one comment that related to a supporting role in the implementation and sustainability of the visual arts program. The assistant superintendent (P2) provided the most comments (12) relating to a supporting role in the visual arts program and elementary school art teachers two (P12) and three (P13) each provided two comments that related to a supporting role.

Table 6

*Number of Responses by Participant and Theme for Category 2: Roles of District Personnel*

| Theme | Participant | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Roles of the teacher in the implementation and sustainability of the visual arts | 7 | 5 | 2 | 3 | 10 | 1 | 0 | 4 | 18 | 8 | 13 | 9 | 8 |
| Support roles in the implementation and sustainability of the visual arts | 9 | 12 | 9 | 11 | 8 | 3 | 3 | 10 | 11 | 3 | 8 | 2 | 2 |

**Category 3: Practices and Characteristics of a High-Performing School District**

Table 7 displays the number of times each participant provided a comment that was relative to the themes for Category 3: Practices and Characteristics of a High Performing School District. Coding of the interview transcripts revealed 87 subthemes categorized into six overall themes: (a) Instructional Practices and Characteristics, (b) Assessment Practices and Characteristics, (c) Curricular Practices and Characteristics, (d) Integration of the Visual Arts, (e) Display of Art, and (f) Supporting Practices in the Implementation of the District's Kindergarten through Grade 12 Visual Arts Program. The theme Instructional Practices and Characteristics provided a category for 23 of the 87 subthemes. The theme Assessment Practices and Characteristics provided a category for nine of the 87 subthemes. The theme Curricular Practices and Characteristics provided a category for 17 of the 87 subthemes. The theme Integration of the Visual Arts provided a category for five of the 87 subthemes. The theme Display of Art provided a category for

four of the 87 subthemes. The theme of Supporting Practices and Characteristics in the Implementation of the District's Kindergarten through Grade 12 Visual Arts Program provided a category for 29 of the 87 subthemes. In the theme of Instructional Practices and Characteristics, 13 of the 13 participants provided multiple comments that related to instructional practices and characteristics. The assistant superintendent (P2) provided the most comments (18) relating to instructional practices and characteristics, and elementary school art teacher three (P13) provided the least amount of related comments (2). In the theme Assessment Practices and Characteristics, 13 of the 13 participants provided a comment that related to assessment practices and characteristics. Elementary school principal three (P6) and elementary school art teacher one (P11) provided the most comments (7) relating to assessment practices and characteristics and the superintendent (P1) only provided one related comment. In the theme Curricular Practices and Characteristics, 12 of the 13 participants provided a comment that related to curriculum practices and characteristics. The superintendent (P1) provided the most comments (11), and the middle school principal (P5) did not provide a related comment. In the theme Integration of the Visual Arts, 13 of the 13 participants provided multiple answers that related to the integration of the visual arts. The superintendent (P1) provided the most comments (8) relating to the integration of the visual arts, and the middle school principal (P5) and elementary school principal two (P12) provided the least amount of related comments (2). In the theme Display of Art, seven of the 13 participants provided a comment that related to the display of art. The high school principal (P4) provided the most comments (4) relating to the display of art and the superintendent (P1), assistant superintendent (P2), middle school principal (P5), elementary school principal one (P6),

and high school art teacher (P9) did not provide a related comment. In the theme Supporting Practices and Characteristics in the Implementation of the District's Kindergarten through Grade 12 Visual Arts Program, 12 of the 13 participants provided a comment that related to supporting practices and characteristics in the implementation of the district's kindergarten through grade 12 visual arts program. The assistant superintendent (P2) provided the most comments (13) relating to supporting practices and characteristics in the implementation of the district's kindergarten through grade 12 visual arts program, and the middle school principal (P5) did not provide a related comment.

Table 7
*Number of Responses by Participant by Theme for Category 3: Practices and Characteristics of a High-Performing School District*

| Theme | Participant | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| Instructional practices and characteristics | 15 | 18 | 9 | 16 | 17 | 4 | 14 | 4 | 12 | 3 | 10 | 9 | 2 |
| Assessment practices and characteristics | 1 | 2 | 3 | 6 | 3 | 6 | 4 | 7 | 4 | 2 | 7 | 5 | 6 |
| Curricular practices and characteristics | 11 | 5 | 7 | 3 | 0 | 2 | 3 | 4 | 1 | 2 | 3 | 2 | 3 |
| Integration of the visual arts | 8 | 6 | 6 | 5 | 6 | 2 | 5 | 7 | 4 | 5 | 6 | 2 | 3 |
| Display of art | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 1 | 2 |
| Supporting practices and characteristics | 6 | 13 | 3 | 2 | 0 | 7 | 6 | 1 | 6 | 4 | 3 | 6 | 2 |

## Summary of Data

The following summarizes the results of the in-depth interviews with central office administrators, principals, and visual arts teachers regarding a high-performing school district's implementation of a kindergarten through grade 12 visual arts program. The organization and presentation of the summary fall under the categories of (a) Perceptions of District Personnel, (b) Roles of District Personnel, and (c) Practices and Characteristics of a High-Performing School District.

### Category 1: Perceptions of District Personnel

1. Central office administrators, principals, and visual arts teachers of a high-performing school district perceived the visual arts inspired creativity as well as critical thinking and problem-solving skills.
2. Central office administrators, principals, and visual arts teachers of a high-performing school district perceived the visual arts developed collaborative skills through teaching the delivery of appropriate feedback and critique. Also, collaboration provided opportunities to create art and facilitated the implementation of the district's visual arts program.
3. Central office administrators, principals, and visual arts teachers of a high-performing school district perceived the visual arts were valued because they cultivated creative, problem-solving, and critical thinking skills as well as provided opportunities for engagement and exploration. Also, the visual arts fostered the development of the whole child.
4. Central office administrators, principals, and visual arts teachers of a high-performing school district perceived educational mandates had not affected

the school district's ability to implement a kindergarten through grade 12 visual arts program.

**Category 2: Roles of District Personnel**

1. Central office administrators of a high-performing school district described their roles in the implementation and sustainability of the visual arts as consisting of
    - communicating the essential components of the visual arts;
    - allocating funds;
    - displaying art;
    - developing strategies for connectivity and sustainability;
    - writing grants to create and support educational spaces; and
    - working to ensure the implementation and sustainability of the visual arts from a kindergarten through grade 12 perspective.

    Additionally, the participants shared that they overcame obstacles to the implementation and sustainability of the visual arts through the demonstration and display of student artwork to the community, being flexible with the mandates, moving with the values of the community, and securing funds through grants.
2. Principals of a high-performing school district described their roles in the implementation and sustainability of the visual arts as consisting of supporting teachers in their ideas, planning professional and curriculum development, allocating financial resources, hiring teachers, supporting teacher preparation, and communicating with the visual arts teachers. Also, the principals noted

their roles in displaying art, allocating time, and supporting the students' creativity. Moreover, the participants indicated they overcame obstacles to the implementation and sustainability of the visual arts through communication with parents and central office administrators.

3. Visual arts teachers of a high-performing school district described their roles in the implementation and sustainability of the visual arts as consisting of displaying art, writing curriculum, leveraging technology to make art, refining and developing relevant courses as well as introducing students to new media. Also, the participants indicated they overcame obstacles to the implementation and sustainability of the visual arts by conferencing with students, utilizing technology for collaboration, and maximizing instructional time.

**Category 3: Practices and Characteristics of a High-Performing School District**

1. Central office administrators, principals, and visual arts teachers of a high-performing school district maintained visual arts instructional practices and characteristics consisted of providing
    - problem-solving;
    - providing creative and cross-curricular opportunities;
    - exposing students to a variety of media;
    - individualizing instruction;
    - using three-dimensional shapes as examples;
    - modeling;
    - allowing student voice and choice;
    - utilizing peer feedback and collaboration;

- coaching;
- leveraging technology to create art; and
- involving students in the design process.

2. Central office administrators, principals, and visual arts teachers of a high-performing school district noted visual arts assessment practices and characteristics consisted of designing assessments that incorporate authentic problem-solving skills, rubrics, peer review, portfolios, sketchbooks to track student learning as well as utilizing formative assessment strategies throughout the creative process.
3. Central office administrators, principals, and visual arts teachers of a high-performing school district noted visual arts curricular practices and characteristics consisted of utilizing the curricular framework Understanding by Design (Wiggins & McTighe, 2005) to build understanding and transference, having a general scope and sequence, and placing curricular writing on hold until a review of the recommendations from the 2017-2018 AEC study.
4. Central office administrators, principals, and visual arts teachers of a high-performing school district indicated the integration of the visual arts with the performing arts occurs best through plays and musicals. Also, the integration of the visual arts into the core subjects is an area of growth for the district.
5. Central office administrators, principals, and visual arts teachers of a high-performing school district noted the best display of the visual arts occurs in

the district's kindergarten through grade 12 visual and performing arts showcase.

6. Central office administrators, principals, and visual arts teachers of a high-performing school district explained supporting practices and characteristics of the district's kindergarten through grade 12 visual arts program consisted of having high-quality art teachers, rigorous hiring process, high expectations and standards, teamwork, spacious facilities, stability, and fiscal responsibility. Also, participants noted the community valuing the arts as well as the superintendent's, assistant superintendent's, principals', and school board's valuing the arts as supportive practices and characteristics of the district's visual arts program.

## Summary

Chapter 4 provided an analysis of the data for this particular study. The analysis of the responses of central office administrators, principals, and visual arts teachers to open-ended questions obtained through in-depth interviews provided the data to study a high-performing school district and their implementation of a kindergarten through grade 12 visual arts program. The analyzation, coding, and summarization of the interview responses resulted in the following categories for review: perceptions of district personnel; roles of district personnel; and practices and characteristics of a high-performing school district. For the purpose of triangulation, this chapter also reviewed documents from the research site. Chapter 5 provides a summary of the findings to appropriately answer the research questions as well as provides recommendations for

future research regarding a school district's implementation of a kindergarten through grade 12 visual arts program.

# CHAPTER 5

## SUMMARY, DISCUSSIONS, RECOMMENDATIONS, AND CONCLUSIONS

The primary focus of arts education is to develop a child's cognitive abilities either through creating or through perceiving an art form (Eisner, 2002). The transformation of an artistic idea into a concrete visual art form requires symbolic and abstract cognition (Pavlou, 2013; Zaidel, 2010). For the development of cognitive abilities to occur, a child has to engage his or her creative, imaginative, problem solving, and aesthetic judgment abilities (Eisner, 2002; Gardner, 1982, 1992; *Learning and the Arts: Crossing Boundaries*, 2000). Scientific studies discovered that the enacting of these higher cognitive abilities necessitates the brain to retrieve facts and theories across multiple domains (Gardner, 1982, 1992). Furthermore, imaginative and creative cognition is not limited to the making of art and is transferable to a variety of other realms (Dewey, 1934; Eisner, 2002; Gardner, 1982; Robinson, 2009; Zaidel, 2014).

Historically, public education assumed the responsibility of addressing the nation's socio-economic ills (Cuban, 2004). The purpose of the Elementary and Secondary Education Act (ESSEA) of 1965, the No Child Left Behind (NCLB) Act of 2001, and the Every Student Succeeds Act (ESSA) of 2015 was to close the achievement gap and establish equity in education across all socio-economic areas. The need to prepare and assess students in reading, writing, and mathematical competencies are necessary; however, studies in the visual arts are essential in the development of creative and collaborative skills (Friedman & Mandelbaum, 2011). Furthermore, innovative and creative aptitudes that are naturally artistic, best prepare students for economic success (Pink, 2005; Tapscott & Williams, 2006). The facilitation of a comprehensive arts

program fosters artistic aptitudes for economic and personal success ("Los Angeles County Arts for ALL," n.d.). Therefore, the cognitive, collaborative, and technical abilities required of today's worker creates a dilemma for policymakers and educators (Tapscott, 1998; Tapscott & Williams, 2006; Wagner, 2008; Zhao, 2009).

This chapter revisits the purpose of the study and examines the importance of the results as they relate to the research questions. The data obtained from the interview questions answer the research questions. The researcher interviewed central office administrators, principals, and visual arts teachers to understand the roles, practices, and characteristics of a high performing school district's implementation of a kindergarten through grade 12 visual arts program. Additionally, the researcher sought to understand the participants' perceptions of how the visual arts program increased the quality of teaching and learning as well as student achievement in a standards-based environment.

## Summary of Research Methodology

Utilizing a qualitative method for this study provided the researcher with an in-depth view of how central office administrators, principals, and visual arts teachers of a high- performing school district perceived the implementation of a kindergarten through grade 12 visual arts program. The implementation of the visual arts program occurred while continuing to attain high levels of academic achievement according to the Commonwealth of Pennsylvania's system of accountability for public schools or through other metrics determined by local or national publications. The researcher employed a semi-structured interview format to enable the participants to respond openly. Through this process, interview questions (Appendix A) answered the research questions. Also, a pilot study refined the interview procedures and enhanced the alignment of the interview

question to the research questions. The following research questions were the basis of this qualitative study:

1. How do the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district perceive the value of the visual arts in increasing the quality of teaching and learning as well as student achievement in a standards-based environment?
2. What are the roles of the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district in the implementation of a kindergarten through grade 12 visual arts program?
3. What are the practices and characteristics of a high-performing school district that implements a kindergarten through grade 12 visual arts program in a standards-based environment?

The researcher primarily collected data through one-on-one interviews with the superintendent, assistant superintendent, building principals, and a visual arts teacher from each building represented in the study. After electronically recording the participants' responses, the researcher transcribed, coded, and categorized the data.

The researcher used triangulation to validate his research by corroborating the participants' responses with a variety of documents. These documents included the district's (a) strategic plan, (b) programs of study, (c) board policies, (d) professional development plans, (e) assessment documents, and (f) miscellaneous district documents. Additionally, the researcher used member checking to confirm the accuracy and completeness of the data obtained through the in-depth interviews (Creswell, 2012). The

researcher also employed peer review as a form of triangulation. Through multiple sessions, the peer reviewer provided an external analysis of the researcher's methodology and his interpretations of the data (Lincoln & Guba as cited in Creswell, 2013).

## Limitations

This study was limited to one suburban school district in Pennsylvania. The participants were the district superintendent, assistant superintendent, curriculum director, high school principal, middle school principal, three elementary school principals, as well as a visual arts teacher from each building in the district. The study did not include interviews with the district's two high school assistant principals, middle school assistant principal, the high school's other visual arts teacher, or teachers professionally certified in areas of instruction outside of the visual arts. As a result, the findings of the study pertain only to the perceptions and experiences of 13 educators of one Pennsylvania suburban school district.

Because this study consisted of one school district, there is a probability the findings may not be readily applicable to other school districts with similar or dissimilar demographics. Another limitation of this study was the need for additional time to further probe the participants' responses. Unrestricted time provides the interviewees the opportunity to clarify and elaborate on their responses (Creswell, 2012). Additionally, a qualitative method is dependent upon the participants' ability to express their knowledge and perceptions as well as their inclination to reveal their thoughts; therefore, the participants might have based their responses on their philosophies and experiences (Creswell, 2012).

The data collected for the study were a result of each educator's description of the perceptions, roles, practices, and characteristics of the district's visual arts program. Eisner (as cited in *Learning and the Arts: Crossing Boundaries*, 2000) indicated the hierarchy of the arts within the school's curriculum indicates to the students how the adults perceive the value of arts education. Due to the centering of the study being on educator perceptions, the omission of student perceptions relative to the value of the arts and their learning arises as a limitation of the study.

Lastly, the researcher was able to interview each potential participant and ask the questions constructed in the interview protocol. In some instances, the interview schedule prohibited the researcher from delving deeper into the participant's response. Although infrequent, the need for additional time to probe for a more fruitful response arose as a limitation.

## Discussion of Research Findings

The following is a summary of the interviews with central office administrators, principals, and visual arts teachers of a high-performing school district and their implementation of a kindergarten through grade 12 visual arts program. Additionally, the findings included research obtained from documents in the form of the district's (a) strategic plan, (b) programs of study, (c) board policies, (d) professional development plans, (e) assessment documents, and (f) miscellaneous district documents.

### Summary of Findings for Research Question 1 - Value of the Visual Arts

This question related to educators of a high-performing school district's perspectives of the value of the visual arts in increasing the quality of teaching and learning as well as student achievement in a standards-based environment. The

participants indicated the visual arts provide an individual the opportunity to explore, reflect, and express their humanity. Furthermore, the study of the visual arts is an iterative process that engages an individual's creative and problem-solving abilities. Through this process, the development of creative and design aptitudes promote innovation and as a result, distinguish the importance of the visual arts in education. Relating to the participants' perceptions, Dewey (1934) believed the creation of art is man's greatest intellectual achievement and significant to the enrichment of one's life. The arts enable an individual to develop and express creative capabilities to design a novel product or service (Eisner, 2002; Pink 2005). Pink contended the workforce requires the application of artistic skills and design procedures to solve real-world problems and create innovations that transform society (Artsedge: The Kennedy Center Arts Education Network, 2008; Pink, 2005, 2008).

**Creativity.** The participants indicated the creative process requires several factors before advancing an art form to completion. Of these factors, the ability to recognize multiple perspectives, solve problems, utilize critique, and be persistent are essential to an iterative process that produces an aesthetic result. Robinson (2011) asserted the process of creativity includes the evaluation of original ideas through exploring, refining, and testing the concepts or designs to failure. The participants further noted the recognition of multiple perspectives increases the potential to develop a myriad of solutions that can lead to the production of multiple designs relating to a specific theme. According to Pink (2005), understanding multiple perspectives enhances self-awareness as well as is significant when designing a product that will appeal to others.

The participants also indicated accepting, utilizing, and applying feedback to bring an idea to fruition is paramount to the creative process. Moreover, the ability to employ resiliency despite failure, dedicate the time, and continue to practice through a series of revisions personifies the relationship between the visual arts and creativity. Gardner (1982) claimed creativity is a solitary commitment that demands fortitude to develop the requisite skills and resolve to withstand the failures encountered through the process. Lastly, Robinson (2011) described creativity as the process of adding value to an innovative idea. In alignment with this description, the participants indicated the study of the visual arts naturally inspires creativity through the development of an aesthetically appealing functional product.

**Collaboration.** The participants' responses revealed solving problems in collaboration with others is important to the development of the whole child. Additionally, the current norm in today's world is for teams of people to consult with each other to create solutions for complex problems. About the visual arts, Robinson (2009) noted the creative process benefits substantially from individuals collaborating with others that share a common interest but view a problem from a different perspective.

The participants also explained the ability to provide and accept critique centered on targeted goals becomes essential to understanding multiple perspectives and developing the collaborative skill of empathy. The participants also made statements acknowledging a quality visual arts program instills collaborative skills and teaches students to make empathic connections. In support of these findings, Gardner (1989) declared the study of the arts extends beyond the mastery of skills and concepts by students encountering their individual feelings and the feelings of others. Furthermore,

Pink (2005) identified the skill of empathy coupled with artistry and inventiveness as gateways to economic success.

The findings indicated the ability to productively offer and accept critique created dialogue between the artist and viewer that can enhance the design of the finished art form. In alignment with this finding, Gardner (1982, 1990, 2008) asserted the arts foster the ability to anticipate, distinguish, and utilize constructive criticism. Furthermore, the critique of art forms created opportunities for self-reflection and productive criticism. The findings also indicated that to improve the outcome of a finished art form through collaborative strategies, feedback provided in the middle of the creative process is essential so that the incorporation of feedback can help to create a more comprehensive art form. For this to occur, there are guidelines provided for students to encourage collaboration, and modeling of collaborative conversations assist students in identifying and discussing a variety of perspectives.

The participants also made statements regarding the importance of collaboration between the district's educators relative to the visual arts. District and building level leadership are participating in the professional development program Community of Learners for Arts Education (CLAE) to support quality arts education. Also, collaboration occurred between the visual arts teachers and core content teachers about the aesthetic components of projects and the integration of cross-curricular connections. Moreover, collaboration occurred between the visual arts teachers and the administration relating to the development of course offerings and grant writing to establish a collaborative space for producing art.

**Educational value of the visual arts.** The participants in this study emphasized that the basis of the educational value of the visual arts is to have the opportunity to develop imaginative, creative, problem solving, critical thinking, and empathic competencies as well as advance the ability to understand multiple perspectives. Regarding the educational value of the visual arts, Eisner (2002) noted arts education stimulates imaginative capabilities as well as develops empathy and tolerance for others. Furthermore, critical artistic self-reflection requires an individual to be able to recognize and understand opposing views (Stewart, 1997).

The participants also emphasized the value of studying the visual arts ranged from the development of fine motor skills to the higher cognitive process of transferring the design elements of master artists to create an authentic art form. In addition to these intellectual dispositions, the visual arts require students to think in a non-linear fashion and to integrate their imagination with the design process to create and solve artistic problems. In support of this finding, Pavlou (2013) contended that visual inquiry encourages the growth of potential ideas that can manifest into a visual art form. These qualities, coupled with the attribute of persistence to bring an art form to fruition, can transfer to other areas of study. Friedman (2007) contended creative discovery results from the ability to connect different disciplines. Moreover, the process to develop a significant art form is identical to the method that has led to many of society's functional and visually appealing inventions (Bertram, 2014).

Additionally, the participants emphasized the visual arts are significant to developing a well-rounded child by leading students to their strengths and connecting them to opportunities and individuals that can nurture their development as a learner and

person. In summary, Eisner (2002) contended the complexities of creating an art form allow an individual to imagine possibilities, interpret metaphors, and utilize unforeseen opportunities. As a result, this opens the chance to explore and evaluate, think subjectively, and transform an idea into an art form within a flexible framework.

To support these qualities, the participants identified the features required to optimize the educational value of the visual arts. These features include allocating the financial resources, professional development, and time necessary to implement a kindergarten through grade twelve visual arts program. In addition, the participants made statements relating to the district's commitment to improve curricular design, critical thinking, and creative skills through their partnership with the Arts Education Collaborative (AEC), the reinstatement of the kindergarten through grade 12 art showcase, and the display of student artwork as factors in supporting the educational value of the visual arts. Lastly, the findings indicated enhancement of the educational value of the visual arts occurs through the central office and principals' willingness to increase opportunities for engagement and exploration by providing a variety of curricular offerings and instructional leadership in the visual arts as well as passionate visual arts teachers that are committed to student success.

**No negative impact of educational mandates on the visual arts program.** Nine of the participants indicated there was no negative impact of educational mandates on the implementation of the district's kindergarten through grade 12 visual arts program. Due to the state-mandated testing concluding for the majority of high school students by the tenth grade, the opportunity to take electives in the visual arts is readily accessible to high school students early in their careers. The participants also indicated state testing

mandates at the elementary level had no negative impact on the visual arts program. Contrary to any negative impact, it was noted, state testing mandates have required educators to utilize the visual arts to establish cross-curricular connections that reinforce learning in core content areas. According to Dewey (as cited in Yakman, 2008), the use of inter-related and contextual constructs deepens learning for students. The findings further indicated the emphasis at the elementary level is to develop holistic learners as opposed to teaching to the state-mandated tests.

The superintendent (P1) provided a comprehensive synopsis concerning the relationship between the visual arts and state assessments. The participant explained the merging of the visual arts with rigorous complex and holistic learning experiences that incorporate creativity and project-based learning and extend beyond the eligible content enables the student to meet state assessment benchmarks as well as develop creative and critical thinking capacities. In alignment with this synopsis, an education that extends beyond reading and mathematical competencies by teaching analytical and creative skills stimulate inquiry as well as enables students to make meaning from a variety of forms (Eisner, 1994; Friedman & Mandelbaum, 2007; Gude, 2013; Zhao, 2009). Moreover, the making of art activates the interfacing of multiple forms of knowledge (Gardner, 1990).

According to Gude (2013), successful schools capitalize on the infinite opportunities to infuse art into the core mission of the school. The superintendent (P1) further explained the challenge for the district of this study is to allocate the funding necessary to meet the education mandates while providing a comprehensive visual arts program with limited funding from state and federal revenue sources. The community and the school board's commitment to support the arts financially lessen this challenge.

**Summary of Findings for Research Question 2 - Roles**

Concerning research question two, participants described their specific role in the implementation of a kindergarten through grade 12 visual arts program. The researcher also probed the participants to describe the evolution of their role and to identify the strategies they use to implement and sustain the visual arts program. Through this line of inquiry, participants identified the obstacles met during implementation and strategies to overcome those obstacles.

The visual arts teachers highlighted encouraging students to create art through traditional techniques as well as through technology, curriculum writing, redesigning and marketing courses, and displaying student artwork as central components to their role as art educators. The visual arts teachers also specified accessing partnerships and implementing activities that are exploratory and allow for creative freedom as significant to the implementation of the visual arts program.

In general, the central office administrators and principals indicated the essential characteristics of their roles consisted of communicating the importance of the visual arts to stakeholders, facilitating the Arts Education Collaborative (AEC) study, identifying and implementing best practices, and anticipating programmatic needs. The participants also indicated the display of student artwork along with allocating time and financial resources as essential aspects to their role of the implementation of the visual arts.

**Roles of the teacher in the implementation and sustainability of the visual arts.** The visual arts teachers made statements that revealed their role requires multi-faceted practices and strategies to implement the district's kindergarten through grade 12 visual arts program successfully. Through building rapport with the students,

opportunities to encourage art making are foundational to the students' experience. Furthermore, the relationship of teacher and student is essential in helping individual students plan their artistic goals as well as enables the teacher to overcome misconceptions about the hierarchy of the visual arts in a student's course of study. Relative to these findings, Eisner (2002) described the teacher's role as an environmental designer that develops scenarios to activate a student's desire to learn.

The findings further revealed the revising and development of art courses that are relevant to the students' lives serve as a tool to lead students to the study of the visual arts. Participants specifically noted their role has evolved through introducing new media and utilizing technology to create functional and authentic artwork. This approach has enhanced relevance and exposed students to multiple forms of media that enable them to express their art in a variety of ways. Regarding this finding, Eisner (2002), maintained the role of the teacher is to guide the student purposefully and skillfully to solve an artistic problem by defining the materials or establishing a framework while simultaneously encouraging artistic interpretation and providing a clear focus.

The participants also revealed that melding the creation of functional art with entrepreneurship opportunities has enhanced the significance of the visual arts. According to Gude (2013), worthwhile art endeavors include contemporary and relevant experiences. Lastly, statements by the visual arts teacher revealed their role consisted of facilitating the display of artwork through a variety of forums. Similarly, Lightfoot (1983), found teachers perceived the display of student artwork as significant to aesthetically enhancing school culture.

**Support roles in the implementation and sustainability of the visual arts.** A summarization of the findings regarding the role of central office administrators and principals found the roles as supportive in the implementation and sustainability of the district's visual arts program. The role of supporting the visual arts from a leadership perspective includes a variety of characteristics that can be either generalized or specific to a central office or building level leadership position. General supporting characteristics relate to budgeting and program development. Concerning the specific supporting roles of central office administrators, the superintendent (P1) summarized their role as leading through actions and articulating the importance of the arts to the overall success of the district to the community and school board. Through this process, the goal is to develop a program that encompasses the mandates and standards as well as reflects the needs of the community and students. To achieve this goal, central office participants emphasized the need to anticipate programmatic needs and identify best practices. Relative to these findings, Dobbs (1992) suggested the characterization of a successful implementation of a district-wide arts program is administrative and community support, appropriate provision of funds, and quality instruction. Additionally, Emamoke (2013) cited the importance of investigating effective instructional practices and identifying the essential topics and requisite skills as significant to study of the visual arts.

Central office administrators also revealed facilitating initiatives such as the Arts Education Collaborative (AEC) study and the district's art showcase, as important characteristics to supporting the implementation of the visual arts. The display of student

artwork is an essential strategy in demonstrating to the community the importance of the visual arts in the educational mission of the district.

Statements from the principals regarding their role in supporting the implementation and sustainability accentuated the need to support the art teachers' preparation through meaningful and relevant professional development. Also, statements by the principals emphasized the importance of creating a master schedule to implement the visual arts effectively. Similar to the findings summarized by the central office administrators, curriculum development and allocation of building level funding are supporting characteristics for the implementation and sustainability of the visual arts.

**Summary of Findings for Research Question 3 - Practices and Characteristics of a High-Performing School District**

Research question three investigated the practices and characteristics of a high-performing school district's implementation of a kindergarten through grade twelve visual arts program in a standards-based environment. Participants brought to the forefront overarching skills and aptitudes that shape instructional design as well as assessment and curricular practices. Through this inquiry, the researcher probed the extent of the integration of the visual arts into the performing arts as well as into the core subjects. The findings from research question three also revealed practices regarding the display of student artwork. Lastly, supporting practices and characteristics in the implementation of the district's kindergarten through grade 12 visual arts program emerged through the research process.

**Instructional practices and characteristics.** The participants overwhelmingly indicated the influence of instructional practices by the teachers' purposeful intent to foster creativity, problem-solving, and collaborative skills as well as the ability to see multiple perspectives. Although cultivation of these skills and aptitudes occurs through instruction in the visual arts, they are transferable and enhance cross-curricular connections to other areas of study. Related to this finding, participants well versed in the district's instructional practices and characteristics at the elementary level emphasized the design of the visual arts lessons around creativity, critical thinking, and exploration. Similarly, Emamoke (2013) contended art education serves as a gateway to artistic growth and creativity. About exploration, Pink (2005) asserted significant developments could occur through the informal investigation of a problem. The participants typically facilitated these skills and experiences by providing directions, demonstrating techniques, and allotting collaborative time for creation and reflection. With this instructional routine, student exposure to multiple forms of media occurs before their middle school experience.

The participants described instructional practices and characteristics at the secondary level as individualized and "hands on." There are three-dimensional examples provided as a guide for students as they create their art forms. According to Dobbs (1992), the use of examples facilitates the development of the curriculum as well as reinforces the cultural, historic, and significant features of multiple works of art. The findings indicated daily instructional practice included the participants consistently circulating to progress monitor as well as to model artistic techniques, tools, and material. The utilization of entry points to a conference as well as the demonstration of skills,

tools, and materials are essential instructional strategies that support students through the artistic process (Eisner, 2002; Mitchell, 2014; Stewart, 1997).

From a kindergarten through grade twelve perspective, participants indicated students have "voice and choice" in the design and creation of art. Intentional collaborative strategies provide targeted feedback. The participants emphasized the importance of employing collaborative feedback in the middle of the project to enhance outcomes as well as to develop the skills associated with critique. Also, participants explained the impact of the infusion of STEAM-based instructional strategies that leverage technology to create art on the instructional practices in the visual arts. For this to occur, Yakman (2008) contended that identifying connections between technology and engineering are contingent on the ability to grasp the connections between the arts and mathematics. Furthermore, the interactions between the arts and engineering influence advancements in the other areas of study.

In summary, the participants emphasized instructional practices in the visual arts have evolved by allowing students more autonomy in the development of their artistic ideas; however, students have been required to show evidence of prototyping before creating an art form. In support of this finding, Robinson (2011) stressed the development of artistic skills with creative possibilities are essential to the making of art. Additionally, the participants' statements accentuated that the design process, as well as high expectations of constructivism, serve as the foundation for instructional practice. Students utilize these foundational pieces to create art and to hone problem-solving aptitudes. Regarding these findings, Emamoke (2013) contended the teaching of the elements of design is an essential instructional practice of art education. Additionally,

Gardner (1989) declared the study of the visual arts should center on the construction of relevant projects. Lastly, in connection to instructional practices in the visual arts, the researcher found it telling that central office and building level administrators have participated in professional development that addresses explicitly instructional leadership practices that support art instruction.

**Assessment practices and characteristics.** Data obtained through inquiry relating to assessment practices and characteristics revealed that projects are the primary mode of summative assessments. Gude (2013) maintained that project-based assessments are foundational to the implementation of a visual arts curriculum. Eleven of the 13 participants specified the use of rubrics as the primary evaluative tool to assess student work. The teachers provide the students with the evaluative criteria before the start of the project and encourage the students to use the rubric to self-assess their work throughout the creative process. The practice of implementing defined criteria to assess student achievement is a typical effective assessment strategy (Clark, 1987). The researcher noted the emphasis of assessing in the middle of the project to move students toward a defined goal as a common finding in this study. Upon completion of the project, students would typically score themselves according to the rubric. The teacher uses the same rubric to evaluate the art form and they encourage students to discuss discrepancies of scores with the teacher. The participants also described the use of peer review, student sketchbooks, portfolios as well as the incorporation of an artist's statement and teacher observation as assessment strategies. The use of reflection statements and portfolios have been widely used to assess student work based on a specific theme (Delacruz & Dunn, 1996).

**Curriculum practices and characteristics.** Throughout the investigation of research question three, the curricular framework Understanding by Design (UBD) emerged as the district's primary pathway to guide curriculum, assessment, and instruction. Through UBD, teachers backward design curriculum by initially identifying the desired outcomes that are foundational to the development of curricular units and assessments (McTighe & Wiggins, 2012). The participants explained that during the 2016-2017 school year, the Pennsylvania Arts and Humanities Standards identified essential understandings for the kindergarten through grade 12 visual arts program. Through this process, the development of transfer goals enhanced student engagement and the value of the visual arts in the students' educational experience.

Overall, the current visual arts curriculum aligned to the standards includes a scope and sequence outline that specifies per grade level the desired levels of mastery. Collaboration occurred between the district's visual arts teachers in the development of the scope and sequence and desired levels of mastery; however, the district postponed curriculum development for the 2017-2018 school year due to the AEC study and revitalization of the district's art showcase. Participant statements corroborated these findings by describing the visual arts curriculum as "patchwork" and "siloed." Hence, a detailed and vertically articulated visual arts curriculum remains a work in progress. Regarding the findings, common characteristics of curriculum development included the sequencing of courses and vertical articulation that integrates art making, art history, and aesthetic evaluation (Dobbs, 1992; Mitchell, 2014). Lessons and learning activities are designed to be developmentally appropriate by scaffolding the concepts needed to build the skills, and essential understandings (Dobbs, 1992). Development of skills and

understanding occurs through the application of creative knowledge to rigorous topics and skill refinement (Stewart, 1997). Several participants maintained the recommendations garnered from the AEC study would drive future curriculum development and practice in the visual arts.

Although participant statements revealed curriculum development and practices in the visual arts as an area of improvement, the current curriculum enhances the opportunity for students to have a holistic educational experience. Also, cross-curricular opportunities have emerged through the integration of STEAM-based experiences. Envisioning scenarios where application of art to solve real-world problems encompasses the spirit of STEAM (Jolly, 2014; Yakman & Lee, 2012). The application of real-world problems occurred at the middle school level in the development of a student-run screen printing business.

**Integration of the visual arts.** Through the investigation of research question three, the researcher sought to gain an understanding regarding the integration of the visual arts into the performing arts as well as the core subjects of math, science, history, and English. According to Delacruz & Dunn (1996), the integration of the visual arts with music, drama, and dance provides additional opportunities that can enhance each discipline individually or collectively. For this study, the integration of the visual arts with the performing arts occurred at the secondary level through set design for high school and middle school plays and musicals. Integration at the elementary level was not strategic. Collaboration has begun between the visual arts and music teachers to plan district-wide integration between the two disciplines purposefully. The revising of the district's art showcase served as the leading example of the purposeful integration of the

visual arts with the performing arts; however, purposeful integration of the visual arts with the performing arts was a noted area of growth.

Additionally, the researcher also extrapolated from the findings that the integration of the visual arts with the core subjects is an area of improvement. Integration occurs informally at the elementary level by the visual arts teachers' awareness of core content sequencing and initiative to utilize the visual arts to make cross-curricular connections. Overall, the integration of the visual arts with the core subjects was not strategic. When integration did occur, it was in pockets and was reliant upon the visual arts teachers' initiative to facilitate the integration. Relative to this finding, Gude (2013) contended further stimulation and enhancement of inquiry and school culture occurs through the integration of art into the mission of the school. Moreover, the integration of the visual arts into other disciplines bolsters the context for learning and student engagement ("Integrate the arts, deepen the learning," 2012). Additionally, Beal (2013), Eskridge (2003), Fulton and Simpson-Steele (2016), Grillo (2009), and Sousa (2006) all discussed the potential for advancements and benefits for society that result from the emergence of art with science and technology. Lastly, Yakman (2008) maintained the integration of the arts with other domains opens a variety of pathways for growth and development.

**Display of art.** Multiple participants referenced the art showcase, as the leading example of the district's kindergarten through grade 12 vertical articulation of displaying art. The art showcase has become an annual event designed to enhance interaction between the artist and the audience. Interactions include students creating works of art in front of the audience and assuming the role of docent as a way to explain the artistic

process through the creation of a specific art form. Also, audience members record their responses to prompts that solicit their insights to what they witnessed, felt, or heard during their showcase experience. The art showcase signifies to the community the significance of the arts in the educational program as well as advertises the artistic opportunities for students as they progress through the school system.

Another finding related to the display of art was the high school's practice of a permanent art display. Through an annual selection process, a work of art accompanies previously chosen art in a designated hallway. A commission paid to the selected artist acquires the artwork for the school so it can exhibit the artwork in perpetuity. The purpose of the practice is to instill into the students that art holds value as well as has a cultural significance. In support of these findings, Lightfoot's (1983) investigation of quality high schools revealed student artwork vibrantly displayed throughout multiple areas of the building fosters a sense of pride and appreciation within the culture of the school.

## Supporting Practices and Characteristics in the Implementation of the District's Kindergarten Through Grade 12 Visual Arts Program

The participant statements indicated the visual art teachers, district's hiring practices, community's commitment to the arts, and central office, building level, and school board leadership as significant factors in the implementation of the district's kindergarten through grade 12 visual arts program. In alignment with these characteristics, Dobbs (1992) noted the importance of quality art instruction throughout all grade levels, administrative support, and allocation of adequate resources.

The findings emphasized the visual art teachers' work ethic, and willingness to seek cost friendly professional development opportunities as well as their passion for art and working with students as central to the success of the program. Stewart (1997) described the teacher as an invested partner in the student's willingness to study the arts. As an extended view, Lightfoot (1983) viewed the teachers as dedicated artists that are skilled in combining instruction with artistic practice. The researcher discovered acquiring art teachers of this ilk is a result of the district's rigorous and intentional hiring practices. These hiring practices include writing research-based job descriptions specific to identifying and attracting quality art educators as well as a multi-step interviewing process that reveals the best candidate.

In addition to hiring quality art educators, participants noted that the community's value for arts education and financial commitment to provide a robust program is instrumental to the support of the arts. Rooted within the valuing of arts education is the initiative of families to patronize the arts and willingness to provide artistic opportunities beyond the scope of the school. Furthermore, vital to implementation and sustainability of the visual arts program, central office personnel demonstrated valuing of the arts by initiating the AEC study, revising and enhancing the district's art show as well as allocating funds, space, and time. Critical factors of success included the ability of the principals to balance their support and leadership of academic and extra-curricular programming coupled with high expectations for all educators. Lastly, the participants viewed the school board's commitment to fund the arts as being paramount in empowering teachers to serve the needs and interests of the students.

In support of these findings, Gardner (1989) stated that art education involves artists, teachers, administrators, and students working in unison. Furthermore, art education programs should aspire to teach students to create beautiful works as well as to have them connect their authentic art forms to the real world (Eisner, 2002). For this to occur, it is the role of the leadership to select and inspire highly qualified teachers as well as to provide adequate facilities and curriculum. Quality teachers, adequate facilities, and relevant curriculum are essential in the pursuit of innovative opportunities within the school system (Zhao, 2009).

## Recommendations for Practice

According to the findings of this study, the researcher recommends the following practices for central office administrators, principals, and visual arts teachers in the implementation of a kindergarten through grade 12 visual arts program. These recommended practices intend to assist each respective role with strategies that facilitate implementation and enhances the success of sustaining a robust and vertically articulated visual arts program.

### Central Office Administrators

Central office leadership is critical in the communication, curricular and instructional support as well as the allocation of funds necessary to implement the visual arts. Consistent practices in these areas maximize and effectively articulate the program's educational value. Central office administrators should consistently promote the importance of the visual arts in the holistic development of students to the community and school board. Communicating to stakeholders, a program that extends beyond academic standards as well as reflects the needs of the students and community is

paramount to instilling the commitment required to implement and sustain a robust program. Throughout the research, an identified best practice that endorses the educational value of the visual arts is a kindergarten through grade 12 interactive arts showcase. This practice vividly demonstrates to the community the artistic opportunities afforded to students throughout their educational experience.

Beyond the promotion of the visual arts, central office administrators should strategically designate the visual arts teachers time for professional development and curricular design to enhance critical thinking as well as creative skills. Furthermore, providing principals with intentional professional development to augment instructional feedback in the teaching of the visual arts is central to advancing pedagogical practices. Central office administrators should also develop research-based job descriptions and hiring practices specifically designed to select outstanding visual arts teaching candidates. Also, central office administrators should initiate and consult with an outside organization committed to quality arts instruction to assess objectively and comprehensively the program's implementation. For these recommendations to come to fruition, central office administrators should develop economic strategies that strategically support the personnel as well as provide the materials and space to implement and sustain a district-wide visual arts program.

**Principals**

Findings generalized from the participants' statements suggest principals serve as an intermediary with central office administrators and visual arts teachers in the identification of programmatic needs. From a tactical position, principals should collaborate with both parties to develop a myriad of visual arts curricular offerings to

enhance opportunities for student engagement and exploration. Principals should also provide instructional coaching and targeted feedback that supports best instructional practices. Furthermore, principals should consult with the visual arts teachers in identifying purposeful areas of professional development as well as providing the time and resources to support the teachers' growth. Relative to time, principals should develop a master schedule that provides students the opportunity to access the arts. Similar to central office administrators, principals should seek ways to display art to capitalize on instilling the value, aesthetic, and cultural benefits of the visual arts. Lastly, principals should develop budgetary strategies and pursue grant-funding opportunities to support existing curricular offerings as well as to implement innovative cross-curricular courses that integrate the visual arts.

**Teachers**

Findings derived from the data collected concerning the role of educators as well as curricular, instructional, and assessments practices of the visual arts teachers provide the basis for recommendations for the operational implementation of the visual arts. Throughout the instructional process, the visual arts teacher should consider the importance of building positive relationships with their students to assist them in defining their artistic goals as well as enhancing their artwork. Visual arts teachers should develop relevant courses that entice students to study the arts. Engaging students in the arts could be achieved by consistently introducing multiple forms of media as students' progress through grade levels and incorporating technology to create functional art. Furthermore, the pairing of functional art with entrepreneurial opportunities is a possible strategy to engage students in making art.

The findings further suggested appropriate project-based assessments build critical thinking and creative capacities that aid in developing the student as a holistic learner. Also suggested is the idea that a holistic learner can better establish cross-curricular connections and maneuver through eligible content. Additionally, project-based assessments are synonymous with the implementation of the visual arts (Gude, 2013). With this in mind, visual arts teachers should develop project-based assessments that utilize the design process and contain evaluations according to specific criteria. The design of the project-based assessment should allow for multiple outcomes and require evidence of planning before construction. Three-dimensional examples should be accessible to use as a guide as students plan and create their art form. During the creative process, the visual arts teacher should demonstrate techniques and the use of tools and materials as well as provide targeted feedback based on the goals of the assessment. Also, teacher or peer feedback used during the middle of the project allows an artist to apply the critique to enhance the outcome. Lastly, time for reflection and collaborative critique strategies provide opportunities to understand multiple perspectives and establish empathetic connections.

## Recommendations for Higher Education

The findings of this investigation presented areas of study for educators in higher education to consider regarding the preparation of superintendents, principals, and teachers. The intent of these recommendations is to provide institutions that offer professional studies in education programs with strategies, practices, and topics to address relating to the implementation of the visual arts or other curricular areas as they prepare educators for their future roles. The following recommendations include:

1. Professional studies in education programs should provide training to aspiring superintendents and principals in the supervision and evaluation of visual arts teachers. This should include how to provide targeted feedback and instructional coaching that specifically promotes best teaching practices in the visual arts.
2. Professional studies in education programs should provide training to aspiring superintendents and principals relating to best practices in the recruitment and hiring of outstanding visual arts teachers.
3. Professional studies in education programs should provide training to aspiring superintendents and principals in strategic practices that support the visual arts or other curricular areas relating to budget, program development, human resources, materials, and space.
4. Professional studies in education programs should provide training to aspiring superintendents, principals, and visual arts teachers as well as other content area teachers in the recognition, components, and instructional practices of the design thinking process. This should include pedagogical practices that promote creativity, problem solving, understanding multiple perspectives, and collaboration.
5. Professional studies in education programs should provide training to aspiring superintendents, principals, and visual arts teachers as well as other content area teachers in pedagogical strategies and practices that promote cross-curricular learning.

6. Professional studies in education programs should provide training to aspiring superintendents, principals, and visual arts teachers as well as other content area teachers in pedagogical strategies and practices that promote project-based learning. This includes the development of real-world and authentic assessments as well as the development of aligned rubrics.

**Recommendations for Further Study for Kindergarten to Grade 12 Education**

This study examined a high-performing suburban school district's implementation of a kindergarten through grade 12 visual arts program. According to the findings of this study, the researcher identified additional areas of investigation to consider that can further validate this study's findings and provide direction to the study of a school district's implementation of a visual arts program or other curricular areas. The following recommendations for further study include:

1. The investigation of central office administrators, principals, and visual arts teachers was essential to understanding the perceptions, roles, practices, and characteristics relating to the implementation of a kindergarten through grade 12 visual arts program. The addition of one or more of the following: (a) core content teachers, (b) students, (c) parents, (d) school board members as participants would provide a more comprehensive view of the study.
2. The findings from this study revealed the display of art as being central to the roles of educators in the implementation of the visual arts. Further research should consider investigating students' perspectives regarding the significance of displaying student artwork.

3. The findings from this study indicated the visual arts teachers viewed establishing a positive rapport with students as significant to planning and inspiring artistic production. Therefore, the impact of the visual arts teachers mentoring students regarding future career choices and academic pathways relative to the visual arts arose as an additional area of investigation for further study.
4. The participants of this study noted the visual arts foster the intellectual dispositions that enable students to achieve success on state assessments. Further research involving a correlational study between academic achievement and successful arts programs that interviewed parents and core content area teachers would corroborate the findings of this study.
5. This study was limited to one suburban school district. It would be interesting to review the findings of an urban or rural school districts' implementation of a kindergarten through grade 12 visual arts program. The perceptions, defined roles, practices, and characteristics of varying demographics could corroborate universal best practices as well as garner strategies for implementation.
6. This study focused on the implementation of the visual arts. The replication of the methodology of this study could determine the perceptions, roles, practices, and characteristics relating to one of the performing arts such as music, theater, or dance.
7. This study utilized a qualitative approach as the mode of investigation. A quantitative approach could provide insights that might not necessarily become available through qualitative analysis. Using a quantitative approach

with a larger group of participants will yield additional information regarding the implementation of a kindergarten through grade 12 visual arts program.

## Summary

The purpose of this study was to investigate the perceptions, roles, practices, and characteristics of central office administrators, principals, and visual arts teachers of a high-performing school district and how they implement a kindergarten through grade 12 visual arts program. In general, the findings from this study indicated the participants based the perception of the value of the visual arts on the opportunity to engage an individual's creative and problem-solving abilities to design and complete an innovative art form. Furthermore, the visual arts serve as a pathway for initiating the creative process. This process requires persistence to identify multiple perspectives and the application of critique to solve an artistic problem. Participants believed a visually appealing art form that possesses utility and function best exemplifies the value of the visual arts in the creative process. Also, the study of the visual arts aid in the development of fine motor skills and exploit the transference of the elements of design to create an original art form.

Participants further maintained the highly cognitive event of solving an artistic problem is often a collaborative process that exposes an artist to multiple points of view; thus, enhancing the ability to make empathic connections. Participants also emphasized the importance of utilizing collaboration as a tool to receive and apply feedback to an art form. Moreover, instructional practices that promote collaboration along with understanding multiple perspectives, making empathic connections, and employing the elements of design, aids in the development of children as holistic learners. Hence, the

use of the visual arts to foster creativity and cognition provides students the intellectual dispositions to achieve beyond state benchmark assessments.

Relative to describing their role in the implementation of the visual arts, the visual arts teachers emphasized the importance of establishing a positive rapport with students to plan and inspire artistic production. Student interest in the arts occurs by offering relevant courses that expose students to multiple forms of media. Moreover, the integration of technology to create functional art through entrepreneurship partnerships are significant to artistic engagement. The visual arts teachers also viewed the display of student artwork as significant to their role in promoting the value of art.

Central office administrators and principals characterized their roles in the implementation of the visual arts as supportive. Their support included communicating the educational importance of the visual arts to stakeholders as well as budgeting and program development. Similar to the visual arts teachers, central office administrators and principals viewed their role in facilitating the display of student art as significant to the district's educational mission.

The visual arts teachers described instructional delivery as often individualized and included modeling of technology, tools, and materials. Furthermore, students have autonomy in their art making; however, the planning of an artistic idea is essential before creating an art form. The structure of an artistic idea is usually around a defined project-based performance evaluated by a fixed set of criteria.

The participants explained the alignment of the curriculum includes a scope and sequence; however, modification of the curriculum remains an area of focus for sustainability. Additionally, the integration of the visual into the performing arts occurs

mostly through musical and dramatic productions. The integration of the visual arts into the core subjects occurred in pockets and was not necessarily strategic. Hence, participants recognized the integration of the visual arts into the core subjects to make cross-curricular connections was a focus area for sustainability. In conclusion, consistently identified throughout the findings was the recognition of a district-wide arts showcase, rigorous hiring practices, administrative support, and district level leadership's commitment to the arts as significant to the viability and implementation of the district's kindergarten through grade 12 visual arts program.

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# Appendix A

## Interview Questions

1. Describe your background relating to the visual arts.

2. What is your personal interest in the visual arts?

3. From an educational perspective, what is your interest in the visual arts?
   a. Why do you perceive the visual arts as being educationally important?

4. Describe your perception of the visual arts relative to this district's goals and vision.
   a. From your perspective, how would you describe the perceptions of the central office administrators regarding the purpose of the visual arts?
   b. From your perspective, how would you describe the perceptions of the principals regarding the purpose of the visual arts?
   c. From your perspective, how would you describe the perceptions of the art teachers regarding the purpose of the visual arts?

5. From your perspective, do most educators in this district perceive the same vison for the visual arts, and if so, why?

6. What are the qualities of the district's visual arts program that are important to the overall academic success of the district?

7. Describe the relationship between the teaching of the visual arts and student learning?

8. Describe how the visual arts impact the student's educational experience and development as a learner?
   a. What skills do students acquire through the visual arts that can cross over into other domains?
   b. How do the visual arts benefit students as citizens in the 21st century?

9. What has been the impact of the educational mandates on the implementation of the district's kindergarten through grade twelve visual arts program?
   a. How does the district's visual arts program contribute to the overall student academic growth performance?
   b. How does the district's visual arts program contribute to the increase of each building level School Performance Profile (SPP) score?
   c. Overall, how does the visual arts program impact the district's curricular and instructional practices?

10. How would you describe your role in the district regarding the implementation of the visual arts program?

11. In what ways is your role unique to the implementation of the visual arts program?
    a. Describe the strategies you utilize for implementation and sustainability.
    b. What obstacles do you encounter in the implementation of the visual arts program?
    c. How do you overcome those obstacles?

12. How has your role regarding the implementation of the visual arts program evolved during your tenure in the district?

13. Describe the curricular framework for the visual arts program.
    a. What are the common visual arts instructional practices?
    b. What are the common visual arts assessment practices?

14. Describe how the district's visual arts program is purposefully integrated with the performing arts program (music, drama, and dance).

15. Describe how the district's visual arts program is purposefully integrated into the core subjects (math, science, history, and English). Please provide specific examples where this occurs.
    a. What practices of the district's visual arts program do you think are most valuable in enhancing the quality of teaching and student achievement?
    b. Describe the professional development for purposeful integration of the visual arts into the core subjects.
    c. What is your specific role for the integration of the visual arts into the core subjects?

16. As a high-performing school district, why is there a high priority placed on the visual arts?
    a. What is the basis for this priority?
    b. How was this philosophy/culture generated?

17. What are the unique practices and characteristics that distinguish you from other districts regarding the implementation of a kindergarten through grade twelve visual arts program?
    a. What are the key factors that drive the program?

18. How have instructional practices in the visual arts program evolved during your tenure in the district?

19. What are the unique practices and characteristics of your kindergarten through grade twelve visual arts program that lead to continual high-performance or reinforce high-performance on standards-based assessments?

20. Are there any other areas in which you would like to comment regarding the perceptions, roles, and practices of a kindergarten through grade twelve visual arts program that I have not touched upon?

## Appendix B

### Questions Preceding the Interview Questions

1. What role do you currently serve in the district?
2. How long have you served in your current role?
3. Briefly describe your professional background. This includes your (a) degrees, (b) professional certifications, (c) current and past professional positions, (d) total years of service in education.

Appendix C

Letter Requesting Permission to Conduct Study

*Note: To maintain the confidentiality, this appendix does not include the name of the assistant superintendent or the name of the participating school district. The official letter was placed on Indiana University of Pennsylvania letterhead and was addressed to the school district's assistant superintendent.*

Monday, February 12, 2018

Dear Dr. **,

Thank you for your time and affording me the opportunity to speak with you regarding my study. Our conversation assisted me in narrowing the purpose of the study. As a result, I intend to investigate the perceptions, roles, practices, and characteristics of educators in a high-performing suburban school district as they implement a kindergarten through grade twelve visual arts program. In addition, I intend to understand how this is accomplished in an era of summative assessments and accountability. In-depth interviews will be conducted with central office administrators, principals and visual arts teachers to obtain the findings for this study.

Please accept this letter as written request for permission to conduct the study in your school district. If you are willing to grant permission for me to conduct the study, please forward me a signed site letter on your district's letterhead indicating that you understand the nature of the intended research and the involvement of your participation in this study.

I anticipate IRB approval from Indiana University of Pennsylvania in late February. Upon approval, I will contact you directly to obtain the names and contact information of the curriculum director, building principals and two visual arts teachers from each building level. I will then email each participant an invitation letter and a voluntary consent form.

Thank for your time and assistance regarding this matter. Please do not hesitate to contact me if you have any questions concerning this request or my study. I have provided my contact information for your use below:

Work Phone: (724) 458-5456 ext. 2106

Cell Phone: (724) 290-3379

Email: LPLS@iup.edu

I'm very grateful for your assistance.

Sincerely,

Brendan Smith

Appendix D

Participants' Invitation and Informed Consent Cover Letter

Indiana University of Pennsylvania
COLLEGE OF EDUCATION AND COMMUNICATIONS

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Indiana, PA 15705-1058

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**F** 724-357-4815
www.iup.edu/ALSDEd

Dear _____,

My name is Brendan Smith and I am a doctoral student at Indiana University of Pennsylvania in the Administration and Leadership Studies program. I am currently at the dissertation stage of my studies and intend to conduct a research study that investigates how a high-performing school district implements a visual arts program from a kindergarten through grade twelve perspective. Through my research, I intend to identify the perceptions, roles, practices, and characteristics of central office administrators, principals, and visual arts teachers representing the elementary, middle school, and high school levels. The study also aims to understand how this is accomplished in a standards-based environment.

This letter serves as an invitation for you to participate in the study. I have provided a brief overview of the methodology below so that you can make an informed decision regarding your acceptance to participate in the study.

This study will utilize one-on-one in-depth interviews as the method to obtain responses from the district's superintendent, assistant superintendent, curriculum director, building level principals and visual arts teachers each representing the elementary, middle school, and high school levels. The interviews will be scheduled at a convenient location and time within the school district so that they are not an intrusion to your school day. Interviews will take approximately 45 minutes to complete and will be recorded using an audio recording device. Interviews will be transcribed and sent to the you to verify the accuracy of the account. You will have the opportunity to make clarifications regarding the account through email, phone, or in person. Your responses to the interview questions

are confidential. In addition, your participation in the study is strictly voluntary and you reserve the right to not answer any question or withdraw from participating in the study at any time.

If you are interested in participating in the study, please complete, sign and return the consent form. Completed consent forms can be scanned and returned via email or sent to the return address on the following page.

Please do not hesitate to contact me if you have any questions concerning the study. Thank you for your time and consideration that you might give to participating in the study.

Sincerely,

Brendan C. Smith

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Indiana University of Pennsylvania
Davis Hall Room 329
570 South 11th Street
Indiana, Pa 15705

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (PHONE: 724-357-7730).

Appendix E

Informed Consent

Indiana University of Pennsylvania
COLLEGE OF EDUCATION AND COMMUNICATIONS
**Administration and Leadership Studies**
Stouffer Hall, Room 136
1175 Maple Street
Indiana, PA 15705-1058
P 724-357-5593
F 724-357-4815
www.iup.edu/ALSDEd

**Title of the Study:**
A Case Study of a High-Performing Suburban School District's Implementation of a Kindergarten through Grade Twelve Visual Arts Program

**Researcher:**
Brendan C. Smith
77 North Liberty-Plain Grove Road
Grove City, PA 16127
LPLS@iup.edu
Cell: 724-290-3379

**Advisor:**
Dr. DeAnna M. Laverick D.Ed.
Professor
Coordinator, D.Ed. in Administration and Leadership Studies Program
Department of Professional Studies in Education
Indiana University of Pennsylvania
Davis Hall Room 329
Indiana, PA 15705
Laverick@iup.edu
Work: 724-357-2400

**Purpose of the Study:**
The purpose of this qualitative study is to investigate the perceptions, roles, practices, and characteristics of educators in a high-performing school suburban school district as they implement a kindergarten through grade twelve visual arts program. In addition, this study intends to understand how this is accomplished in an era of summative assessments and accountability.

**Procedures for the Study:**
Upon receiving notification of your acceptance to participate in the study, an interview date, time and location that is convenient to you will be scheduled. The interview will center on your perceptions, role, and practices as well as the characteristics of a

kindergarten through grade twelve visual arts program. The interview will take approximately 45 minutes to complete and will be recorded using an audio recording device. The recording of the interview will be transcribed and forwarded to you to confirm the accuracy of the account and to correct misunderstandings.

**Risks and Benefits:**
No known risks have been identified to participate in this study. There are no direct benefits for the research subjects that participate in this study.

The results of this study will serve as a strategic, tactical, and operational blueprint for school districts that aspire to implement a quality a quality visual arts program while achieving academic success as measured by state performance criteria. Moreover, universities with art education, curriculum and instruction, and educational leadership studies programs could garner information to instruct educators at all levels of the curricular, administrative and fiscal best practices needed for successful implementation and high achievement. On a broader scope the findings could serve as a conduit between American public education and industry. Ideally curricular offerings will nurture a skill set that is in alignment with the demands of the economy. Lastly, this study can add to previous research that examines educational reform and the role of the visual arts in preparing students for economic success.

**Compensation:**
There is no compensation for participating in this study

**Confidentiality:**
The name of the school district and the names of subjects to be interviewed with the use of an interview protocol will remain confidential throughout the writing of the study. The school district is referred to in the study as "high-performing suburban school district." Individual research subjects will be referred to as their current role in the district (i.e., superintendent, assistant superintendent, curriculum director, elementary principal, middle school principal, high school principal, elementary visual arts teacher, middle school visual, arts teacher, and high school visual arts teacher). You will have access to review your interview transcript for accuracy prior to the publishing of the contents. The researcher will maintain data and consent documents for three years to comply with federal regulations. The data will be filed and stored on a locked device and in a locked filing cabinet in the researcher's home.

Any type of written or verbal communication between the participant and the researcher will be handled the same level of fidelity to ensure confidentiality.

**Voluntary Participation:**
Participation in the study is strictly voluntary and each participant reserves the right to withdraw from participating in the study at any time. The research subject may email the researcher if they desire to be withdrawn from the study. Upon receipt of the request to withdraw, the researcher will destroy any data collected from the participant to this point.

The research subject also reserves the right to not answer any interview questions he or she does not want to answer.

**Additional Information:**
I can be contacted concerning additional information for this study at LPLS@iup.edu or 724-290-3379. My advisor, Dr. DeAnna Laverick can also be contacted at 724-357-2400.

If you agree to the terms outlined above and are willing to participate in the study, please complete, sign and return the consent form. Completed consent forms can be scanned and returned via email or sent to the return address listed in the informed consent letter. A copy of the completed voluntary consent will be provided for your files.

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**VOLUNTARY CONSENT FORM**
I have read and understand the information on the form and I consent to volunteer to be a participant in this study. I understand that my responses are completely confidential and that I have the right to withdrawal at any time through personal conversation, written communication, phone call, or email. I have received an unsigned copy of the Informed Consent Form to keep in my possession.

**Name (PLEASE PRINT) _____**

**Signature_____**

**Date_____**

**Phone number or location where you can be reached_____**

**Best days and times to reach you_____**

I certify that I have explained to the above individual the nature and purpose, the potential benefits, and possible risks associated with participating in this research study, have answered any questions that have been raised, and have witnessed the above signature.

_____ _____

**Investigator's Signature** **Date**

Appendix F

Pilot Participant Invitation

Indiana University of Pennsylvania
COLLEGE OF EDUCATION AND COMMUNICATIONS

**Administration and Leadership Studies**
Stouffer Hall, Room 136
1175 Maple Street
Indiana, PA 15705-1058

**P** 724-357-5593
**F** 724-357-4815
*www.iup.edu/ALSDEd*

Dear _____,

I am a doctoral student at Indiana University of Pennsylvania in the Administration and Leadership Studies program. I am currently at the dissertation stage of my studies and intend to conduct a research study that investigates how a high-performing school district implements a visual arts program from a kindergarten through grade twelve perspective. Through my research, I intend to identify the perceptions, roles, practices, and characteristics of central office administrators, principals, and visual arts teachers representing the elementary, middle school, and high school levels. The study also aims to understand how this is accomplished in a standards-based environment.

I have received permission from Indiana University of Pennsylvania's Institutional Review Board to begin my study. As part of this process, I am conducting a pilot study to further refine my interview questions and procedures. This letter serves as an invitation for you to participate in the pilot study. I have provided a brief overview of the methodology below so that you can make an informed decision regarding your acceptance to participate.

My pilot participants will represent each of the school leaders identified in the study. I intend to conduct pilot one-on-one in-depth interviews that will be approximately forty-five minutes in length. Interviews will be audio-taped and transcribed. A transcript will be provided to each pilot participant. Pilot participants will be asked to member check their respective interview transcript for accuracy of the pilot interview. In addition, each pilot participant will be asked to provide input relating to the wording, sequencing, and appropriateness of the interview questions. The interviews will

be scheduled at location and time that is most convenient for the pilot participant. You will have the opportunity to make clarifications regarding the account through email, phone, or in person. Your responses to the interview questions are confidential. In addition, your participation in the pilot study is strictly voluntary and you reserve the right to not answer any question or withdraw from participating in the pilot study at any time.

If you are interested in participating in the pilot study, please complete, sign and return the consent form. Completed consent forms can be scanned and returned via email or sent to the return address on the following page.

Please do not hesitate to contact me if you have any questions or concerns. Thank you for your time and consideration that you might give to participating in the pilot study.

Sincerely,

Brendan C. Smith

**Principal Investigator:**
Brendan C. Smith
Doctoral Candidate, IUP
77 North Liberty-Plain Grove Road
Grove City, Pa 16127

LPLS@iup.edu

**Faculty Sponsor:**
Dr. DeAnna M. Laverick
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Indiana University of Pennsylvania
Davis Hall Room 329
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## Appendix G

### Email to Pilot Participant Invitation

Dr. and/or Ms. or Mr.

As part of a requirement for completing a doctorate degree in Administration and Leadership Studies, I am conducting a study titled: A Case Study of a High-Performing Suburban School District's Implementation of a Kindergarten through Grade Twelve Visual Arts Program.

This study has been approved by Indiana University of Pennsylvania's Institutional Review Board. The attached letter is an invitation to participate in the pilot study. In addition, the letter outlines the purpose, methodology, and procedures for the pilot study.

Also attached is an informed consent form. Directions for completing and returning the informed consent are provided in the letter. Participation in the pilot study is strictly voluntary and pilot participants reserve the right to not answer any question or withdraw from participating at any time.

Thank you for any consideration that you might give to participate in the pilot study.

Sincerely,

Brendan C. Smith
Doctoral Candidate
Indiana University of Pennsylvania

## Appendix H

### Email to Pilot Participant Requesting Transcription Review

Dr. and/or Ms. or Mr.

Thank you for taking the time to participate in my pilot study titled: A Case Study of a High-Performing Suburban School District's Implementation of a Kindergarten through Grade Twelve Visual Arts Program.

Attached is the transcription of your pilot interview. Please review the transcript for accuracy. In addition, please feel free to provide input relating to the wording, sequencing, and appropriateness of the interview questions.

In addition, please review the research questions below and provide input regarding the alignment of the interview questions to the research questions (see attached interview questions and alignment of research questions to interview questions table).

1. How do the superintendent, assistant superintendent, curriculum director, principals and visual arts teachers of a high-performing school district perceive the value of the visual arts in increasing the quality of teaching and learning, as well as student achievement in a standards-based environment?

2. What are the roles of the superintendent, assistant superintendent, curriculum director, principals, and visual arts teachers of a high-performing school district in the implementation of a kindergarten through grade twelve visual arts program?

3. What are the practices and characteristics of a high-performing school district that implements a kindergarten through grade twelve visual arts program in a standards-based environment?

Lastly, please list any additional interview questions that I should ask to appropriately address the research questions.

Please send your responses to LPLS@iup.edu. Your willingness to be a pilot participant and your time is greatly appreciated.

Sincerely,

Brendan C. Smith
Doctoral Candidate
Indiana University of Pennsylvania

Appendix I

Email to Assistant Superintendent to Begin Study

_____,

I have received approval from Indiana University of Pennsylvania's Institutional Review Board to begin my study titled: A Case Study of a High-Performing Suburban School District's Implementation of a Kindergarten through Grade Twelve Visual Arts Program.

I am contacting you to begin the process of scheduling my site visits. Following is a list of participants that I would like to interview for obtaining information regarding the implementation of a K-12 visual arts program.

_____ Superintendent
_____ Assistant Superintendent
_____ Curriculum Director
_____ High School Principal
_____ Middle School Principal
_____ Elementary School Principal
_____ Elementary School Principal
_____ Elementary School Principal

Additionally, will you please provide me with the names and email addresses of the visual arts teachers from each of the buildings listed below? It is preferred that the teacher has at least three years of experience in the district. If you foresee any problems with this list of requested participants, please contact me.

Visual Arts Teacher High School
Visual Arts Teacher Middle School
Visual Arts Teacher _____ Elementary
Visual Arts Teacher _____ Elementary
Visual Arts Teacher _____ Elementary

When I have received confirmation from you regarding the final list of participants, I will email each participant an invitation letter with an informed consent form. Once I know who has agreed to participate, how would you like for me to proceed with scheduling interviews?

As part of triangulating my interview data, I will utilize the district's strategic plan, programs of study, and the visual arts teachers' syllabi. The school district's strategic plan will be examined to validate evidence relating to the strategy for continual growth, development, and sustainability of the district's visual arts program. Program of studies for the elementary, middle school, and high school levels will be examined to review the curricular offerings, scope and sequence of courses, prerequisite skills and knowledge,

and required courses in the visual arts. Syllabi will be surveyed to identify the content for planned instruction relating to the categories of elements and principles for production, historical and cultural contexts, and critical and aesthetic responses. What is the best way for me to obtain these documents?

I am excited to begin my study and I am very appreciative for all your assistance. I look forward to hearing from you.

Sincerely,

Brendan Smith

Cc: Administrative Assistant

Appendix J

Email Response to Assistant Superintendent Regarding the Scheduling of In-Depth Interviews

_____,

Thank you for your prompt response regarding the scheduling of in-depth interviews. As you requested, I have attached a blank copy of the invitation letter as well as the informed consent. Directions for returning the informed consent are outlined in the invitation letter.

The dates I would be able to come to do the interviews are March 23, 26, 27, 28, 29 and April 3, 4, 6, 9, 10, 11, and 12. If you need dates beyond April 12 please let me know and I will send those to you.

Thus far, the pilot interviews have taken approximately forty-five minutes to one hour to complete. Interviews will be recorded using an audio recording device. Interviews will be transcribed and sent to the research subject to verify the accuracy of the account. They will have the opportunity to make clarifications regarding the account through email, phone, or in person. Their responses to the interview questions are confidential. In addition, their participation in the study is strictly voluntary and they reserve the right to not answer any question or withdraw from participating in the study at any time.

The process for the collection of documents you described with your self-study with the AEC will be of great assistance to me.

If any of the invited participants have any questions concerning the study, please let them know that I am available to answer their questions.

Thank you again for all your assistance.

Sincerely,

Brendan C. Smith
Doctoral Candidate
Indiana University of Pennsylvania

Cc: Administrative Assistant

Appendix K

Email to Participant Requesting Transcription Review

Dr. and/or Ms. or Mr.

Thank you for taking the time to participate in my study titled: A Case Study of a High-Performing Suburban School District's Implementation of a Kindergarten through Grade Twelve Visual Arts Program.

Attached is the transcription of your interview. Please review the transcript for the themes and interpretations that I have identified for their accuracy and completeness. Potential themes are presented as comments in the right margin of the document. The highlighted words within the transcript are key words or phrases that have helped me to develop potential themes. Please feel free to provide additional insights or opinions that you would like me to consider.

Please send your responses to LPLS@iup.edu. Your willingness to be a participant and your time is greatly appreciated.

Sincerely,

Brendan C. Smith
Doctoral Candidate
Indiana University of Pennsylvania

Appendix L

Sample Rubrics

Name:_____ Class Code:_____

## ARTIST STATEMENT

_____

_____

_____

_____

_____

_____

**Project: Art Parody - 100 points**

| | Proficient or Beyond 25-21 Points | Progressing 15-20 Points | Needs Improvement 0-14 Points |
|---|---|---|---|
| **CRAFTSMANSHIP** *Is it neat? Were tools used correctly?* | | | |
| **EFFORT** *Was time used wisely?* | | | |
| **CREATIVITY** *Did you change the subject? Did you have an original idea?* | | | |
| **DIRECTIONS** *Did you follow the directions for this project?* | | | |

FINAL GRADE:_____
*(completed by [redacted])*

Name:_____ 4th Grade Class Code:_____

## PRINTMAKING: Pop Art Animals – 100 points

| | PROFICIENT<br>25 Points | PROGRESSING<br>20-24 Points | NEEDS IMPROVEMENT<br>10-19 Points | INCOMPLETE<br>0-9 Points |
|---|---|---|---|---|
| **COMPLETENESS** | The final print is complete. The animal is large and clearly printed. | The animal is not large or clearly printed. | The animal is not large and is not clearly printed. | The artwork is incomplete. |
| **CRAFTSMANSHIP** | The animal was drawn neatly and the ink was applied with skill and care. | The animal needs to drawn more neatly. The ink was applied with skill and care in some areas. | The image is hard to understand. The ink was not applied with skill or care. | The project was rushed and not completed. |
| **PRESENTATION** | Artwork is flat and mounted with an even boarder on all sides. Artwork has a title. | Artwork is missing one of the following: A title, mounted correctly, or an even border. | Artwork is missing two of the following: A title, mounted correctly, or an even border. | Artwork is not presented properly. |
| **EFFORT** | Class time was used wisely to create a neat and original piece of art. | Class time was sometimes used wisely to create a neat and original piece of art. | Project was rushed and minimal care and effort have taken place to produce a neat and original piece of art. | Little to no care or effort has been made to complete a neat piece of art. |

| FINAL GRADE | The one thing I will remember from this lesson is... |
|---|---|
| (to be completed by [redacted] | |

## General Art Rubric- Self Assessment and Teacher Assessment

**Project Title:** _____

Student's name:_____ Grade:____ Date:_____

| This project shows that the student: |  |  |  |
|---|---|---|---|
| 1. Followed directions. | | | |
| 2. Demonstrated understanding of new art concepts and methods. | | | |
| 3. Showed creativity. | | | |
| 4. Displayed neat work and good craftsmanship. | | | |
| 5. Had a positive attitude. | | | |
| 6. Used time wisely and finished project completely. | | | |
| 7. Put name and date on work. | | | |
| 8. Used materials appropriately. | Comments: | | |
| 9. Cleaned up work area and materials. | | | |
| Total points possible: 45  = 5 0  = 4 or 3  = 2,1 or | | | |

What did you learn? ...

[redacted] Art Rubric – *Mural Tile*

| *Project Criteria* | *4* | *3* | *2* | *1* |
|---|---|---|---|---|
| *Follows Directions, Requirements*<br><br>*Craftsmanship* | Complete understanding of class dynamics<br>Exceptional skill with media | Very good idea of the class<br><br>Above average art skills | Barely average grasp of directions<br>Shows some skill | Does not meet expectations |
| *Originality Creativity* | Unique, very original, individual | Usually original, expressive | Seldom original<br>Work possibly copied | No original ideas |
| *Design Principles / Elements* | Complete understanding, use of elements and principles | Has very good idea of art intent | Unclear thinking Little use of principles and elements | No concept of art principles or elements |
| *Teamwork-Communication* | Always Contributes-Excellent Communication | Contributes most of the time-Gets along | Seldom contributes.--Sometimes uncooperative | No attempt to communicate - Argumentative or Disinterested |
| *Attitude, including Attendance* | Very helpful, positive and considerate. Takes total responsibility for work missed | Is helpful. Usually makes up work missed | Not very helpful or cooperative. Sometimes tries to make up work missed | Uninvolved. Feels no responsibility to make up work missed |

Comments: