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A Case Study of Arts Integration Practices in Developing the 21st Century Skills of Critical Thinking, Creativity, Communication, and Collaboration

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A Case Study of Arts Integration Practices in Developing the 21st Century Skills of
Critical Thinking, Creativity, Communication, and Collaboration

By
Cari A. Maneen

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Gardner-Webb University
2016

Approval Page

This dissertation was submitted by Cari Maneen under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Acknowledgements

I would like to express my appreciation to my family and friends as this dissertation could not have been possible without their love and support. To my husband and best friend, Shawn, thank you for being with me every step of the way. Your encouraging words were so appreciated at times when I became overwhelmed. You brainstormed ideas with me when I had none left. You always listened with an empathetic ear when I had to “talk through” procedures to better understand them. I am grateful for the enormous shoes you filled because my role of “mom” shifted to data collector, data analyzer, and writer. For your unwavering support, patience, and love, I am forever grateful.

To my principal, Ronette, thank you for your kind words of encouragement and flexibility with the schedule. Your thoughtfulness was felt and always seemed to come at times when I most needed it. To Melissa, Ginger, and Stephanie, I appreciate you all taking the time to sit and listen when I met a roadblock. Just bouncing ideas around was highly beneficial and allowed me to proceed in the right direction.

Thank you to my cohort friends, Lisa, Chad, Erica, Kari, Julie, Michelle, Teree, Jamie, Matt, Brittany, Kristi, Kristen, and Ali, for your kind words and valuable feedback. This process was very challenging, but you all made it fun and memorable.

Thank you to my dissertation committee: Dr. Putnam, Dr. Blanton, and Dr. Clark. You are three of the most positive people I have ever met. I would come to you with what I thought was a problem and you helped me see a learning opportunity. I admire each of you for your commitment to learning but, most importantly, your commitment to students.

My sincere appreciation goes to Lori and the participants who willingly took time

from their busy schedules to volunteer for the study. I could not have asked for a friendlier group of people to work with. Because of you all, I have learned more about arts integration best practices which will help me be a better educator.

Finally, my sincere thanks and gratitude are extended to my children, Kayla and Michael. Sometimes there were days when you only saw the back of my head as I sat typing at a computer. Not once did either of you complain or ask me why I was undertaking this role. Kayla, you once told me that I was your inspiration. I hope that I continue to be. Michael, your acknowledgment and thoughtful words after my dissertation proposal meant so much. You have both seen me struggle and greet success along this journey. Thank you for supporting my dreams. Always remember, you too can accomplish yours.

I am excited you were all on this journey with me. I am so blessed.

Abstract

A Case Study of Arts Integration Practices in Developing the 21st Century Skills of Critical Thinking, Creativity, Communication, and Collaboration. Maneen, Cari A., 2016: Dissertation, Gardner-Webb University, A+ Schools Program/Arts Education/Arts Integration/ Experiential Education/Multiple Intelligences/21st Century Skills/Critical Thinking/Creativity/Communication/Collaboration

This qualitative, single case study explored teacher perceptions of arts integration practices in developing critical thinking, creativity, communication, and collaboration (4 C's) at a North Carolina A+ (arts-integrated) kindergarten through eighth grade charter school. A combination of interviews, document analysis, and site observations were utilized to answer the guiding question: What is the impact of a school-wide arts integration program on creativity, critical thinking, collaboration, and communication? The research focused on three questions: (RQ1) What strategies/methods are used to implement a school-wide arts integration program at this school? (RQ2) What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school? (RQ3) What 21st century support systems align with the school-wide arts integration program at this school?

Data gathered from interviews, observations, and documents revealed common themes or practices implemented at the school to sustain the school-wide arts integration program: collaborative planning, leadership support, focus on the process of learning rather than the product, multiple learning pathways and measures of success, professional development, community partnerships and relationships, and reflection as a tool for growth. The arts integration strategies perceived by participants at the research site that promote the 4 C's include student engagement in group projects, student self- and peer-analysis of artistic work, student creative choice, and student expression of knowledge through multiple art forms and mediums. The 21st century support systems of standards, assessments, curriculum and instruction, professional development, and learning environments were found to be in alignment with the arts integration support systems at the school site.

The results of this study led the researcher to conclude the school-wide practices of arts integration promote student acquisition of the 4 C's. Recommendations include providing education preparation programs with redesigned curriculum offerings to emphasize the connection between the arts and 21st century skills, such as the 4 C's. Adapting the school infrastructure to support collaborative planning, teaching, and professional development in arts integration practices that support the 4 C's should also be considered.

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Chapter 1: Introduction

Educators, educational experts, and business leaders in the 21st century unremittingly seek answers to the venerable question: How do we prepare students for the future? With increased focus on student accountability measures and the implementation of 21st century skills, teachers are searching for creative and innovative ways to teach all students. In order to succeed in the 21st century, today's students must be taught the necessary skills to acquire mastery of rigorous standards and acquire the cognitive and social skills to compete and function in a globalized society and economy (Partnership for 21st Century Skills [P21], 2006; Taylor, 2011).

Over the past decade, P21, a national organization comprised of business and education leaders, has advocated for standards focusing on core academic knowledge and emphasizing life and career skills (P21, 2006). North Carolina adopted the Common Core State Standards in English language arts and mathematics in 2010, with full implementation in 2012-2013. These standards, adopted in 45 states and the District of Columbia, represented the largest curriculum alignment effort and change in the history of United States education. The Common Core State Standards offer a set of clear and consistent goals for students in kindergarten through Grade 12; the intent of the standards is “to help ensure that students in every school will acquire the knowledge and skills critical to success in college, career, and life” (Conley, 2014, p. 1). Although the Common Core State Standards identified the concepts students are required to learn at each grade level, they did not specify the instructional methods or the curriculum teachers must use. Conley (2014) stated, “[T]he Common Core State Standards encourage best practices in teaching and learning. Educators build on their current effective methods to implement the Common Core State Standards in ways that make the most sense for the

students in their classroom” (p. 8).

As the Common Core State Standards are being implemented in school systems, P21 (National Education Association [NEA], n.d.) urges educators to fuse the 3 R’s (reading, writing, and arithmetic) with the 4 C’s (creativity, critical thinking, collaboration, and communication). P21’s (2015) Framework for 21st Century Learning stated, “within the context of core knowledge instruction, students must also learn the essential skills for success in today’s world, such as critical thinking, problem solving, communication, and collaboration” (p. 1).

A review of the literature uncovered three major business surveys that itemized the work skills deemed necessary for employment in the 21st century. The first survey conducted by P21 (2008) named oral communication, teamwork, ethics/social responsibility, professionalism, and reading comprehension as the top five skills employers sought. The Critical Skills Survey distributed by the American Management Association (AMA, 2010) is the second major business survey to outline 21st century workplace skills. The survey was distributed to 2,115 managers and executives. Participants were surveyed on the skills necessary for entry-level jobs. Respondents indicated that in addition to having workers who can read, write, and perform arithmetic, they also need skills in creative thinking (problem solving); communication; collaboration; and creativity (innovation). Results from the AMA (2010) survey indicated 75.7% of executives who responded to the survey believed the 4 C’s would continue to become even more important to their organizations within the next 5 years as the economy improved and their organizations looked to grow in the global marketplace. In addition, 80% of responding executives believed fusing the 3 R’s and the 4 C’s would better prepare students to enter the workplace. Executives cited proficiency in reading,

writing, and mathematics was not sufficient if employees were unable to think critically, solve problems, collaborate, or communicate effectively. In fact, AMA (2010) indicated employee annual performance measures included creativity (57.3%), critical thinking skills (72.4%), collaboration (71.2%), and communication skills (80.4%).

A third survey, facilitated in 2013 by the National Association of Colleges and Employers (NACE, 2014), found the top five skills employers sought are the abilities to make decisions and solve problems; to communicate; to obtain and process information; to plan, organize, and prioritize work; and to analyze data. The NACE (2014) report concluded that employers have increased their employee skill expectations because businesses are hiring fewer people and expecting them to do more. When compared, the survey results from the three studies indicated an agreed-upon set of entry-level skills desired by employers. Table 1 displays the comparison.

Table 1

Comparison of Employer Surveys Top Rated Employee Skills

21st Century Survey (2008)	AMA Survey (2010)	NACE Survey (2013)
Oral Communication	Communication	Oral Communication
Teamwork	Collaboration/Teamwork	Collaboration/Teamwork
Ethics/Social Responsibility	Critical Thinking/ Problem Solving	Problem Solve
Professionalism	Creativity/Innovation	Organization
Reading Comprehension		Obtain and Process Information

Note. Adapted from Hodge and Lear (2011, p. 31).

Comparison results indicated entry-level positions in organizations will require

employees to be able to communicate, collaborate, and problem solve. The AMA (2010) survey also reported executives believe there is much room for improvement in today's workforce. Of the survey respondents, 58.6% believed it is easier to develop the 4 C's in students rather than experienced workers (28.8%). The NEA (n.d.) asserted, "It is clear that the 'Four Cs' need to be fully integrated into classrooms, schools, and districts around the country to produce citizens and employees adequately prepared for the 21st century" (p. 6).

American views of what schools should be teaching correlate with the opinions of employers, according to the results from a Gallup poll study of 1,001 interviews. Gallup sampled a national cross-section of households to yield a representative survey across the population. Participants indicated responses using a 5-point scale with 5 being strongly agree and 1 being strongly disagree (Bushaw & Lopez, 2013). Questions were created to determine the levels of support for instruction in 21st century skills. Table 2 displays the skills respondents deemed important to teach students according to a 2013 Gallup poll.

Table 2

2013 Gallup Poll Results of 21st Century Skills Instructional Expectations

Statements: Today's schools should...	% Strongly Agree
Teach students critical thinking skills.	80
Teach students communication skills.	78
Teach students how to set meaningful goals.	64
Know how to motivate students.	61
Teach students how to collaborate on projects.	57
Foster students' creativity.	58
Promote students' well-being.	54
Build students' character.	51

Note. Adapted from Bushaw and Lopez (2013, p. 19).

Interviewed Americans believed critical thinking skills are the most important 21st century skills, closely followed by communication. Results concluded that respondents believed it is important for schools to teach students critical thinking, communication, collaboration, creativity, and collaboration skills. Results from employer surveys and the Gallup poll indicated consensus among the importance of teaching the 4 C's.

Wagner (2008) described seven survival skills all students will need for careers, continuous learning, and citizenship in the 21st century: critical thinking and problem solving, collaboration and leading by influence, agility and adaptability, initiative and entrepreneurialism, effective oral and written communication, accessing and analyzing information, and curiosity and imagination. Wagner (2012) ascertained Americans are faced with economic and social challenges and are in need of developing the capacities of young people to be creative innovators in the 21st century. "We need to develop the creative and enterprising capacities of all our students" (Wagner, 2012, p. 4). Similarly, Friedman and Mandelbaum (2011) pointed out there is a huge gap between the average American student and the average student in many industrialized countries such as Singapore, Finland, Korea, Taiwan, and parts of China. Friedman and Mandelbaum analyzed test results from the Programme for International Student Assessment (PISA), which measures critical thinking and other 21st century skills, and ascertained that American students are in the middle of the pack for reading and science and lagging near the end for mathematics. The authors noted, "A high school education must prepare students for the next step of education or skill-building" (Friedman & Mandelbaum, 2011, p. 108). Trilling and Fadel (2009) agreed, stating, "The new world of work is demanding ever higher levels of expert thinking, and complex communicating" (p. 48).

Robinson (2009), a leader on creativity (as cited in Trilling & Fadel, 2009), stated that schools educate the creativity right out of students through rote memorization, basic skills, test taking, and a focus on facts. Wagner (2012) stated,

One problem with this traditional approach to learning, however, is that the way in which academic content is taught is often stultifying: It is too often merely a process of transferring information through rote memorization, with few opportunities for students to ask questions or discover things on their own—the essential practices of innovation. (p. 141)

Arts educators and supporters contend a well-known teaching practice, arts integration, maximizes the benefits of education on student learning (Heath & Wolf, 2005; Ingram & Meath, 2007; Rabkin & Redmond, 2006; Smithrim & Upitis, 2005). Researchers have described arts integration as a process of teaching and learning “with” and “through” the art of dance, music, drama, and visual art (Burnaford, Brown, Doherty, & McLaughlin, 2007; Cornett, 2007; Remer, 1996) by establishing relationships between the different art forms and other subjects. *With the arts* refers to arts integration that may not be aligned with the standards or curriculum. This form has the least depth of integration. At this level, integration with the arts is used for pleasure, such as singing holiday songs (Cornett, 2007). Arts integration in which students are learning *through the arts* provides deeper, more meaningful curricular connections (Cornett, 2007). In this approach, the arts are used daily as a catalyst for learning in all subject areas.

The program *Changing Education Through the Arts* (CETA) offers a comprehensive definition of arts integration and is the definition used by the researcher throughout the study: Silverstein and Layne (2010) stated, “Arts integration is an approach to teaching in which students construct and demonstrate understanding through

an art form. Students engage in a creative process which connects an art form and another subject area and meets evolving objectives in both” (p. 1).

The benefits of arts integration have accumulated as research findings have indicated arts integration practices have distinctive prospects as an educational reform model. The President’s Committee on Arts and the Humanities (PCAH, 2011) conducted an in-depth review of the current condition of arts education and its benefits.

Documented studies, reported in *Reinvesting in Arts Education: Winning America’s Future Through Creative Schools*, revealed links between arts integration models and academic and social outcomes for students, efficacy for teachers, and improvements in school culture and climate (PCAH, 2011). The PCAH (2011) report put the focus on arts integration at the national level and demonstrated how integral the arts were to a complete education allowing students the capacity to innovate and meet the challenges of a global society. The report documented the benefits of arts education and made specific recommendations to advance the arts in education. The recommendations included focusing efforts to expand arts education offerings to disadvantaged students and underserved communities and to strengthen the evidence base for high-quality arts education (PCAH, 2011).

North Carolina A+ Schools Program

Many school districts across the country have implemented comprehensive school reform models such as the multistate A+ Schools Program. The A+ Schools Program views the arts as fundamental to student learning and teaching in all subject areas (A+ Schools, 2003). The vision of the A+ Schools Program is to create enhanced learning opportunities for students by using an innovative approach to teaching the arts across the curriculum: arts-integrated instruction (Noblit, Corbett, Wilson, & McKinney, 2009).

Studies documented in the PCAH (2011) report highlighted the A+ Schools as a model program to improve public education through arts integration.

An 8-year study conducted on the North Carolina A+ Schools Program presented the arts as a way to revitalize and energize schools by focusing more attention on creative ways for students to be engaged in learning such as arts integration, rather than on traditional ways (Noblit et al., 2009). The extensive program evaluation led by Noblit et al. (2009) found the A+ Schools Program to be a successful arts-based school model primarily because of its focus on the arts and curriculum integration. The authors contended, “The A+ Schools Program is the largest arts-based school reform effort in recent history, and the only one to have had significant research funding attached to it” (Noblit et al., 2009, p. vii). The A+ Schools Program has promoted and applied classroom-based arts integration and integrated arts classes to develop creativity, imagination, and innovation in all students to address the needs of students and prepare them for the 21st century workplace (A+ Schools Program and 21st Century Skills, 2008). The A+ Schools Program contended,

As early as 1995, the year A+ began, the CEO’s of several of the U.S.’s largest corporations identified ten essential skills for the 21st century workplace: communication/speaking, listening, observing, critical thinking, problem-solving, creative thinking, collaboration/teamwork (interpersonal skills), reading, writing, using numbers. The A+ Schools Program was developed with these 21st Century skills in mind. (A+ Schools Program and 21st Century Skills, 2008, p. 1)

Unlike many educational reform movements, the North Carolina A+ Schools Program is not mandated. Teachers at A+ Schools combine interdisciplinary teaching (the weaving together of subjects) with arts instruction, offering children numerous

opportunities to develop creative, innovative ways of thinking, learning, and showing what they know (Arts for All, n.d.). The developers of the A+ Schools Program incorporated these skills, or set of commitments, into the creation of the program's eight Essentials. These Essentials are provided in Appendix A. The A+ Essentials, created by a network of teachers, coordinators, principals, and A+ Fellows, serve as a set of core commitments woven in practices throughout the A+ Schools (Arts for All, n.d.). These Essentials provide statements or commitments to increasing exposure to the arts through arts integration in content areas and through classes with art specialists. The curriculum is fostered through two-way integration using teacher-created thematic units. Teachers use multiple learning pathways such as Gardner's Multiple Intelligence Theory (Gardner, 1993) to draw on individual learning strengths. The focus is on teaching the 21st century skills to develop skills and to balance learning for all students. Another essential commitment, professional collaboration, involves planning, scheduling, teamwork, professional development, and community relationships (Noblit et al., 2009, pp. 5-6). Enriched assessments are ongoing tools used for self-reflection and provide more opportunities for students to share what they have learned. Experiential learning is grounded in differentiated instruction and hands-on learning experiences. Climate, another essential, provides the supports needed to build student morale and includes the sharing and celebrating of successes with a focus on lifelong learning for the entire school community. Finally, the A+ Schools' infrastructure supports the philosophy by fostering shared leadership, maintaining a shared vision, and providing relevant professional development opportunities (A+ Schools Program, 2012).

Due to the diversity of the A+ Schools, individual schools are encouraged to exercise creativity and adapt the overall goals and eight Essentials to their particular

circumstances (Arts for All, n.d.). “The requirements for the A+ Schools program are not uniform, and the approach does not prescribe a specific curriculum, methodology or process of implementation” (Wheat-Whiteman, 2014, p. 4). The Essentials are not a checklist. Instead, they are designed as a reflective tool allowing schools to self-assess their growth as A+ Schools. The significance of the Essentials relies in the relationship among them. Using the Essentials, A+ Schools approach the arts in three ways: through arts integration, arts education, and arts exposure (Wheat-Whiteman, 2014). Arts integration is bringing together arts (visual arts, dance, drama, music, and creative writing) and non-arts standards to create hands-on, experiential, and connected learning experiences that support each child’s unique way of learning. Arts education refers to the arts as core, academic disciplines with standards-based instruction in music, dance, theater arts, and visual arts. Arts education is developing an understanding of the elements, history, processes, and works of each art form. Arts exposure is creating opportunities for students to experience artistic works, performances, and related careers in order to experience real world application and better prepare them for the future (A+ Schools Program of the North Carolina Arts Council, n.d.).

Nelson’s (2001) report described the positive school effects of arts-based reform on teacher effectiveness, student learning, school culture, and community involvement. This report synthesized the findings of a 4-year evaluation of the A+ Schools pilot program conducted on 25 schools in North Carolina. The evaluation indicated students showed growth on the state’s high-stakes accountability measures compared to other schools state-wide without “narrowing” the curriculum by teaching only tested subjects. The evaluators found teachers at the A+ Schools designed enriched academic environments by teaching in creative ways to help students understand and demonstrate

mastery of learning by tapping into their multiple intelligences and emphasizing hands-on learning. Additional findings from these reports found five key effects that characterize an A+ School: The A+ Schools Program legitimized the arts as worthy subjects and tools to promote learning in all subjects; pushed schools to build new connections between teachers, across schools, and between schools and communities; provided evidence of enhanced organizational capacity to leverage internal structures and manage external environments; focused on arts integration as the central organizing principle that contributes to its arts-based identity; and provided enriched academic learning environments and opportunities for students (Deasy, 2002).

The history of the A+ Schools Program provides the background needed to understand the A+ School vision, purpose, and A+ Essentials pertinent to the researcher's study. A review of literature revealed a gap in studies related to the practice of arts integration and 21st century skills. This study describes teacher perceptions of the role arts integration practices and programs have in promoting the 21st century skills of creativity, critical thinking, collaboration, and communication at a North Carolina A+ charter school.

Statement of the Problem

Arne Duncan, United States Secretary of Education, discussed the importance of the arts in 21st century learning:

Education in the arts is more important than ever. In the global economy, creativity is essential. Creative experiences are part of the daily work life of engineers, business managers, and hundreds of other professionals. To succeed today and in the future, America's children will need to be inventive, resourceful, and imaginative. The best way to foster that creativity is through arts education.

The ability to perform and create in the fine arts engenders innovative problem-solving skills that students can apply to other academic disciplines and provides experiences working as a team. Equally important, arts instruction supports success in other subjects. Visual arts instruction improves reading readiness, and learning to play a musical instrument or to master musical notation helps students to succeed in math. Reading, math, and writing require students to understand and use symbols — and so does assembling shapes and colors in a portrait or using musical notes to learn fractions. Experiences in the arts are valuable on their own, but they also enliven learning of other subjects, making them indispensable for a complete education in the 21st Century. (PCAH, 2011, pp. 1-2)

The conundrum of the secretary's statement is that American schools today are faced with challenges including a narrowed curriculum with strict focus on the high-stakes tested subjects of reading and math, a dropout rate that approaches 50% in some demographics, an achievement gap between the highest and lowest performing students that continues to widen, and teachers who want to engage their students in active learning but lack the tools to do so (PCAH, 2011). Furthermore, the 21st century skills of creativity, critical thinking, collaboration, and communication have been identified as skills executives and managers deem necessary to be successful in the workforce (AMA, 2010).

This study did not focus on determining the quality of the arts education program. Rather, it investigated teacher perceptions of how the 21st century skills of creativity, critical thinking, collaboration, and communication (indicated as needed skills in the workplace) are fostered through arts integration practices and programs at a North

Carolina A+ charter school.

Purpose of the Study

Research over the past decade revealed arts education strategies, particularly the technique of arts integration, have yielded positive results by engaging students in the learning process and better preparing them to thrive in the 21st century's global economy with skills such as creativity and innovation, critical thinking, collaboration, and communication (PCAH, 2011). The A+ Schools Program has been commended as a whole school reform model that incorporates recent brain research, 21st century skills, and Gardner's (1993) theory of multiple intelligences while integrating academic subjects with dance, drama, music, visual art, and creative writing (A+ Schools Program of the North Carolina Arts Council, n.d.).

The purpose of this qualitative, single case study design was to examine teacher perceptions of how the implementation of arts integration practices and programs promote student acquisition of the 4 C's as described by P21. The A+ Schools Program, with its emphasis on arts integration, has been found to be a successful strategy to enhance learning across the curriculum. The program's eight core principles, or Essential Commitments, were created using 21st century skills, experiential learning theory, and multiple intelligences theory integrated across the arts and subject areas (Arts for All, n.d.).

The participating teachers are educators at a kindergarten through Grade 8 charter school that maintains a "substantive A+ identify wherein most school staff considered the arts in making important decisions about school operations and made repeated attempts to integrate the arts into major subject instruction and to integrate the major instruction into arts instruction" (Noblit et al., 2009, p. 88). The teachers combined interdisciplinary

teaching and daily arts instruction affording opportunities for children to develop creative ways of thinking, learning, and showing what they know.

Research Questions

The guiding question for this study was, “What is the impact of a school-wide arts integration program on creativity, critical thinking, collaboration, and communication?”

The research focused on three questions.

- RQ1. What strategies/methods are used to implement a school-wide arts integration program at this school?
- RQ2. What strategies/methods are used to foster student acquisition of the 4 C’s through arts integration at this school?
- RQ3. What 21st century support systems align with the school-wide arts integration program at this school?

Significance of the Study

Previous studies have examined the benefits of arts-based programs and arts as school reform. More than 12 years of research on the North Carolina A+ Schools Program identified consistent gains in student achievement, parent and community engagement, and other measures of learning. The A+ Schools Program has been recognized as a comprehensive educational reform model (PCAH, 2011) based on using arts-integrated instruction, incorporating the theory of multiple intelligences (Gardner, 1993), and recent brain research. Stakeholder perceptions of how the arts, particularly the practice of arts integration, foster acquisition of the 4 C’s is lacking in the literature. The perceived effects of arts-integrated practices and the promotion of the 4 C’s through the eyes of teachers using this practice daily offer insight into a possible relationship between arts integration and the 4 C’s. Results from this study may be used to influence

educational decisions by providing teachers and administrators with best practices to incorporate the arts into their existing programs. Further, this research will contribute to the development of the literature in the field between the relationship of arts-integrated practices and the implementation of 21st century skills.

The A+ Schools Program currently has an active network of over 50 schools in North Carolina and six states. With the increased attention on A+ Schools and its replication at additional sites, examining the perceived impact of the arts integration program and how it promotes the 4 C's is essential. This study may provide guidance to educators not only seeking creative and innovative ways to preserve the arts at their schools but also interested in exploring the opportunities the arts potentially offer for improving learning in other areas of the curriculum.

Further, teachers and administrators may use the findings from this study to implement similar arts-integrated practices. Arts integration is not a new strategy. However, the study may reveal ways to support educators seeking to engage and motivate students while fostering the 21st century skills of creativity, critical thinking, collaboration, and communication. Combining arts integration and 21st century skills in the classroom may offer educators a model to meet the demands of the business community by better preparing students who are more engaged in the learning process and better prepared to enter the workforce and compete in today's global economy.

Definition of Key Terms

For the purpose of this study, the following key terms are referred to according to the definitions listed below.

4 C's. The 21st century skills of creativity, critical thinking, collaboration, and communication.

21st century skills. Skills such as problem solving, creativity, collaboration, communication, innovation, adaptability, and use of technological tools that teachers should prepare students for to succeed in the workplace (P21, 2006).

Accountability. The act of engaging in compliance with rules and regulations of school governance and reporting to those with authority over the school.

Arts integration. An approach to teaching “through” and “with” the arts (dance, music, visual arts, and theater arts) by establishing relationships between the different art forms and other subjects (Burnaford et al., 2007). Students engage in a creative process that connects the art form and subject area whereby constructing and demonstrating understanding of in-depth objectives in both the art form and the other subject area (Artists as Educators, 2008, p. 5).

Common Core State Standards. English language arts and mathematics standards developed in 2010 by the National Governor’s Association in partnership with the Council of Chief State School Officers for students in Grades K-12. Currently, 46 states have adopted and implemented the Common Core State Standards as part of Race to the Top.

Curriculum narrowing. Narrowing the curricula and activities in a classroom to cover the content areas tested on state assessments (Amrein-Beardsley, 2008).

End-of-grade tests. Summative assessments given by the state of North Carolina at the end of the year to students in third through eighth grades to determine grade-level proficiency and/or growth on predetermined standards. Assessments are given yearly in reading and math, and science is given in fifth through eighth grades (North Carolina Department of Public Instruction Accountability Services Division, 2014).

Enriched assessment. Enriched assessments integrate the arts into the

assessment giving students many options to demonstrate learning.

High-stakes testing. Any test used to make important decisions regarding educational issues about schools, teachers, administrators, and students (Amrein & Berliner, 2002).

Informance. Informal performances where children show family and faculty what they have learned.

Interdisciplinary teaching. An educational approach in which two or more subjects are interwoven during the learning process.

Meta-analysis. A series of quantitative techniques for synthesizing research on a specific topic (Marzano, Waters, & McNulty, 2005).

Perception. An awareness, interpretation, or view; perceptions can control performance in a work environment (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005).

Race to the Top (RttT). An education reform grant funded by the American Recovery and Reinvestment Act of 2009 designed to reward states that meet criteria aimed at raising student achievement (U.S. Department of Education, 2009). Federal funds are awarded to schools through competitive grants requiring schools, among other things, to adopt the Common Core State Standards.

Revised Bloom's Taxonomy (RBT). A two-dimensional framework focusing on knowledge and cognitive processes defining specific verbs for each standard to help teachers understand, align, and address the North Carolina Essential Standards (Anderson & Krathwohl, 2001).

Teaching to the test. Adjusting classroom instruction to produce high scores on a test (Barth & Mitchell, 2006).

The arts. Art forms including dance, drama, visual arts, music, creative writing are collectively referred to as “the arts” (Seaman, 1997).

Thematic units. The curriculum is devised of ideas organized around a few themes that cut across content areas rather than thinking of the content as discrete subjects (Noblit et al., 2009). This term is used interchangeably with interdisciplinary teaching.

Visual arts. Instruction designed to foster creative expression and skill development through drawing, sculpture, painting, pottery, art history, art criticism, and art production (Fowler, 1996).

Chapter Summary

Although research has documented the continued decline of arts in schools (Rabkin & Hedberg, 2011), the value of arts integration has gained the recognition of federal lawmakers (PCAH, 2011) as a model for creating enhanced learning opportunities for students (Noblit et al., 2009). The North Carolina A+ Schools Program implements arts integration programs and practices to develop the 21st century skills needed to prepare students for 21st century workplaces and communities (A+ Schools Program and 21st Century Skills, 2008, p. 1). The emergence of the Common Core State Standards presents an opportunity for educators to reexamine or restructure their schools to address their deficiencies (McTighe, 2010) and provide innovative approaches to prepare students for college, career, and citizenship.

This qualitative case study addressed teacher perceptions of how teaching through the practice of arts integration connects to and fosters the 21st century skills of creativity, critical thinking, collaboration, and communication. Supported by the theoretical perspectives that form the framework of the A+ Schools Program, the study focused on

teacher participants from an A+ charter school in western North Carolina. The study has the potential to offer an arts integration model by providing the educational community with a design structure for fostering the 4 C's through the practices of arts integration.

Organization of the Remainder of the Study

The literature review in Chapter 2 provides the theoretical framework for the study, examines arts integration within its historical context, details the research surrounding 21st century skills and learning, and reviews research findings of arts integration practices and programs. Chapter 3 addresses the methodology design and rationale for the study. An explanation of population, sampling, instrumentation, data collection procedures, and analysis are provided as well as steps for validating the study. Chapter 4 states the findings of the data analyses organized by research questions. Chapter 5 provides a summary of results, discussion of findings, and recommendations for practice, policy, and research.

Chapter 2: Literature Review

This chapter provides an overview of the literature associated with arts integration and 21st century skills. The review began with a broad search of a variety of materials such as literature reviews and abstracts on general topics of arts-based education, reform initiatives involving arts education, arts integration, and the value of arts integration on student outcomes. Further research explored theories related to arts integration practices. Key words and descriptors such as A+ Schools Program, arts integration, arts in education, arts reform, multiple intelligences, experiential learning, brain research, 4 C's, 21st century skills, collaboration, communication, critical thinking, creativity, No Child Left Behind (NCLB), arts-based learning, interdisciplinary curriculum, and education reform were used to conduct in-depth reviews of the literature. Searches of computer databases allowed the author to conduct searches through academic libraries and online search engines such as Google Scholar, ERIC, and ProQuest and to prioritize searches by publication dates and types of publications. A variety of materials including research compendiums, literature reviews, books, journals, meta-studies, and program evaluations as well as reference citations allowed the author to examine what other researchers have identified as significant and measured when expressing the results of arts-based teaching practices and high-stakes testing on student outcomes.

This review of literature is broken up into four sections: (1) theoretical framework; (2) 21st century skills; (3) education reform and art advocates; and (4) value and concerns of arts integration. Arts integration, Experiential Learning Theory, the Theory of Multiple Intelligences, and the Framework for 21st Century Skills are the theoretical frameworks guiding this study. Each of these frameworks makes up the foundation of the A+ Schools Program under investigation. Merriam (2009) stated, “A

theoretical framework is the underlying structure, the scaffolding or frame of your study” (p. 66). The constructivist theory of learning is the lens through which the researcher explains the process of learning and the various aspects of the identified frameworks.

Constructivist Learning Theory

According to constructivist learning theory, which is based on the works of Dewey (1934/2005), Bruner, (1961), Piaget (1963), and Vygotsky (1971), knowledge is assembled by the learner based on past experiences and present learning (Applefield, Huber, & Moallem, 2001). As a result, students taught a common experience by the same instructor could have varying interpretations of the learning. Constructivist approaches to teaching involve the student as an active member in the learning process in order to make sense of their own understanding in relation to new information (Richardson 1997). The constructivist teacher, according to Tobin and Tippins (1993), is a facilitator between the student and the student’s prior knowledge, thus actively engaging the student in the learning experience with student-to-student interactions. Learning is not based on memorization or skill practice. Rather, students have the opportunity to create meaning from new information by utilizing problem-solving methods, reflecting on new understandings, and engaging exploratory learning (Tobin & Tippins, 1993).

Efland (2002) supported the constructivist theory in relation to arts learning by asserting that integrating knowledge of many subjects through arts creates deeper understanding and awakens intellectual inquiry. Rabkin (2010) asserted arts integration is a leading example of constructivist education and is the most significant innovation in the field of education over the last 2 decades. The literature review on the theoretical frameworks offers a point of reference for the importance of this research and to the

contribution this study may yield.

Arts Integration

To understand educator perceptions of the impact of arts integration on the 4 C's, it is important to have an understanding of the definition of curriculum integration. Curriculum integration, as a method of organizing the curriculum, has been around for over a century (Beane 1997; Drake & Burns, 2004). Numerous researchers described various definitions of curriculum integration referring to the curriculum as holistic, interwoven, interdisciplinary, linked, and thematic (Beane, 1997; Drake & Burns 2004; Fogarty, 1991; Jacobs 1989). Although researchers conceptualized varying approaches of curriculum integration, all designs are intended to aid students in making meaningful connections within and across subject matters to develop a more powerful understanding of key ideas (Fogarty, 1991).

Support for arts integration came from Eisner (1979) when he first began advocating for the arts in education in the 1960s, contending the arts should be included as an essential component of the curriculum. Eisner (2002) made a direct link between the curriculum and thinking skills proposing a holistic approach to education and the use of arts integration to meet the needs of all learners. He believed art and education could not be separated. Eisner (2002) defined arts integration as “emerging the arts curriculum into other arts and nonarts curricula” (p. 40). One aim of Eisner’s (2002) book was to dispel the notion that the arts are intellectually undemanding. Eisner (2002) wrote,

I argue that many of the most complex and subtle forms of thinking take place when students have an opportunity either to work meaningfully on the creation of images—whether visual, choreographic, musical, literary, or poetic—or to scrutinize them appreciatively. (p. xii)

The relationship of arts integration to cognitive and academic gains, according to Eisner (2002), supports the transfer of learning in and through the arts to other learning situations.

Often cited as a descendant of Dewey, Greene, a teacher and education theorist, influenced thousands of educators to use the arts as a fundamental learning tool. Greene (2000) wrote several essays published in the book *Releasing the Imagination* reporting how experiencing the arts develops one's imagination. According to Greene, imagination provides a means for making connections between our experiences and those presented by artists and art forms. Bringing together literature, visual arts, drama, music, and dance creates relevance to all learning styles and ability levels contributing to the cognitive, affective, and psychomotor domains (Greene, 2000).

Beane (1997) advocated for combining knowledge and thinking in different disciplines, whereas students learn to apply knowledge acquired in one area to challenges in another area. This orientation is consistent with many of the practices associated with arts integration. Beane explained,

Imagine for the moment that we are confronted with some problem or puzzling situation in our lives. How do we approach the situation? Do we stop and ask ourselves which part of the situation is language arts, or music, or mathematics, or history, or art? I don't think so. Instead, we take on the problem or situation using whatever knowledge is appropriate or pertinent without regard for subject area lines. (p. 7)

Arts integration advocates claimed the arts offered unique, innovative, and engaging ways to approach teaching and support learning (Rabkin & Redmond, 2006). Studies confirm the arts can be used as a way to transfer knowledge (Burton, Horowitz,

& Abeles, 2000; Catterall, 2002; Rabkin & Redmond, 2004). The concept of “transfer” in which “learning in one context assists learning in a different context” has intrigued cognitive psychologists for at least a century (Catterall, 2002, p. 151). Using this approach, the arts are a facilitator of learning (Wakeford, 2004). Rabkin and Redmond (2004) stated,

Integrated arts education is not arts education as we generally think of it. It is designed to promote a transfer of learning between the arts and other subjects, between the arts and the capacities students need to become successful adults. It is designed to use the emotional, social, and sensory dimensions of the arts to engage students, and leverage development and learning across the curriculum. (p. 9)

Evidence from compendium studies revealed that transfer of learning takes place (Catterall, 2002). Transfer refers to the sense that learning activities in the arts have effects beyond that of the initial conditions of learning (Catterall, 2002). Gardner (2008) agreed that transfer in the arts denotes instances where learning in one context assists learning in a different context because participation in the arts is a way to develop a range of multiple intelligences (Catterall, 2002). By integrating the arts to enhance content learning, the role of both art and content in other curricular areas are employed. Wakeford (2004) stated,

Not only do the arts foster a set of transferable academic competencies such as creativity, intellectual risk-taking, or the ability to see multiple solutions to a problem, but arts-rich curricula also appear to enhance a student’s likelihood to self-identify as a “learner.” Within this frame, the arts are not only learned, they help constitute the process of learning itself. (p. 102)

Arts integration gained attention in the 1960s and 1970s when arts partnerships engaged in relationships with public schools in discussions involving classroom teachers, arts specialists, and teaching artists (Remer, 1996). Teaching artists are typically noncertified teachers who practice an art form as a profession and are considered inherent to success in some models of arts integration. Teaching artists are regular partners in classrooms, and they plan with the regular classroom teacher to integrate one art form with one non-art content area. Burnaford et al. (2007) asserted,

The arts integration movement afforded content specialists in areas such as reading, math, science, and social studies, to discuss, experience, plan, and teach with arts specialists in schools. Arts integration encouraged classroom teachers to explore whether, how, and to what degree the arts could play a role in their classrooms. (p. 3)

In the 1980s, art educators became concerned with the structure of the arts. Discipline-based arts education (DBAE) was created as a comprehensive approach to art education built on the assertion that the arts should be core academic subjects with a written curriculum and taught to all children regardless of ability or talent level (Walling, 2001). This approach placed emphasis on the cognitive and academic qualities of the arts. The Getty Center for Education in the Arts concentrated on the implementation and dissemination of DBAE to improve the quality and status of arts education in the nation's schools. The Getty Center laid the groundwork in 1983 for integrating the arts in education (Walling, 2001).

A 4-year pilot study conducted on 24 A+ Schools in North Carolina found the A+ Schools Program placed high on the six national dimensions of effective school reform. The six dimensions included balanced scope, clear focus on teaching and

learning, a long-term time frame, a focus on authority that encourages school-level initiative but embraces support from the top, opportunities and support for collaboration, and ongoing professional development. This study demonstrated school reform goes beyond assessments of student outcomes to include engagement and attitudes. Results demonstrated how an arts-integrated curriculum served as a catalyst for developing richer and broader educational experiences to support the curriculum (Adkins & McKinney, 2001). Each of the seven reports provided documentation and research from several accomplished authors in the area of arts integration that found positive effects of the benefits of the A+ Schools Program (Deasy, 2002).

The A+ Schools Program works in partnership with various agencies to continue to adapt and make changes to reflect current trends while maintaining the philosophy and A+ Essential of the program. Schools in the A+ Program are not left alone to navigate their own way. Currently, the A+ Schools Program is part of the North Carolina Arts Council and has partnered with the North Carolina Department of Public Instruction (Wheat-Whiteman, 2014). A series of comprehensive evaluations and subsequent policy reports were conducted on the 25 North Carolina A+ pilot schools, and the findings were compiled into the report *Critical Links*.

Experiential Learning Theory

Experiential Learning Theory, originating with the works of Dewey and Piaget, emphasized the central role experience has on the learning process (Kolb, 1984).

Experiential Learning Theory is “the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (Kolb, 1984, p. 41).

John Dewey, known as the father of experiential learning, advocated for

instruction that used the arts to involve students and to make learning active (Goldblatt, 2006). Dewey's emphasis on art as part of the human experience and belief that every person is capable of being an artist shifted opponents' views of art education. Dewey's philosophy was learning by doing, rather than rote-learning (Dewey, 1938/1997). He argued that traditional education placed too much emphasis on the delivery of knowledge and not enough on the students' understanding of actual experiences. Thus, Dewey proposed that education should be structured on the basis of a theory of experience which rested on two central tenets: continuity and interaction. Continuity is the notion that humans are affected by experience, and each experience is retained and brought forth into future experiences. Education is an important avenue for providing children with the skills needed to live in society. Dewey (1938/1997) contended that people learn from every experience, whether positive or negative, and the accumulated experiences influence all potential future experiences. Interaction refers to how past experiences interact with the present situation to create new experiences. In school, for example, an experience of a lesson will depend on how the teacher facilitates the lesson as well as past experiences of similar lessons. Dewey (1938/1997) argued that because students' past experiences cannot be controlled, educators should try to understand those experiences and design meaningful and relevant learning opportunities for students.

Dewey (1938/1997) criticized traditional education for lacking a holistic approach; an experience that is physical, intellectual, emotional, aesthetic, and volitional. Dewey advocated that the design of curricula, which was overly focused on content rather than both content and process, should focus on cooperative learning, problem solving, and be based on experience. Dewey's (1934/2005) primary tenets of the child-centered curriculum, the integration of subject matter, and connecting learning to real-life

experiences have had lasting influence on the practices of teaching and learning. A connection between arts education and experiential learning is established as educators and students connect with thoughts and emotions through the experiences created and recollected in the arts. Dewey's (1934/2005) belief that everything in life overlaps and merges met resistance from traditional art educators who believe the arts should be taught for their own sake.

To accomplish Dewey's thinking of a holistic approach to education, the curricula during the 20th century needed radical reform. Kilpatrick, Dewey's colleague, discussed the concept of arts integration in his 1918 article "The Project Method." Kilpatrick advocated for learning in a collaborative environment that allowed students to solve purposeful problems through exploration using their senses and directed by their individual interests (Beyer, 1999). This method of learning is considered to be a precursor to today's concept of integration (Goff & Ludwig, 2013). Dewey responded to Kilpatrick's project method arguing the reorganization of the curriculum to include the interrelations of subjects and how together they might enrich the curriculum (Goff & Ludwig, 2013).

Piaget (1970), as cited in Efland (2002), posited that the holistic approach of integrating the arts is a primary tool for cognitive development. Piaget's theory of cognitive development emphasizes development as well as learning (Efland, 2002). Piaget's (1970) theory describes the development of human beings through different stages of cognition, and it is universally recognized. The development and understanding of skills in the arts were absent, however, from Piaget's work (Efland, 2002). Philosopher Nelson Goodman and Psychologist Howard Gardner began working within Piaget's framework to fill in this gap by studying people's responses of early symbolism

with artistic forms from the perspective of cognitive development.

Goodman (1968) acknowledged that the emotions displayed through studying the arts, such as understanding a painting or a symphony, can be viewed as cognitive in the same way as learning to write or read. Goodman justified,

The integration of the arts into our concept of cognition and thus into the overall educational process is vitally important for students who are not to become artists at all. How works of art and through them, our worlds, and worlds through them may be comprehended and created must be part of a basic education for millions of us who will never be artists of any kind. (p. 33)

Arts integration practices, according to Silverstein and Layne (2010) align with the constructivist approach to teaching which includes drawing on students prior knowledge, providing opportunities for student interactions, offering hands-on learning experiences, engaging students in reflection, using self- and peer assessments, providing opportunities for revising and sharing of work, and fostering a safe and supportive environment where students can explore and take risks.

Theory of Multiple Intelligences

Gardner's (1993) theory of Multiple Intelligences supports Goodman's position and has framed the face of education today (Armstrong, 2000). The different kinds of intelligences, relating how people have different "smarts," are widely practiced by educators and is a natural fit for educators integrating the arts (Armstrong, 2000).

Gardner (1993), co-director of *Project Zero*, a 40-year history project on arts at the Harvard Graduate School of Education and author of several books on multiple intelligences wrote, "[T]he purpose of school should be to develop intelligences and to help people reach vocational and avocational goals that are appropriate to their particular

spectrum of intelligences” (p. 9). The intelligences focused on the multiple styles and multiple ways that students learn to make the most of their abilities. The theory allowed one to assess the skills and talents of the whole individual to help individuals develop in all eight areas. These intelligences are defined by Gardner (1999) as follows: linguistic intelligence is the sensitivity to spoken and written language to express oneself, learn languages, and understand people. Logical-mathematical intelligence involves the capacity to analyze and solve complex mathematical operations. People with musical intelligence have the ability to hear and recognize musical patterns and compositions. Bodily-kinesthetic intelligence entails the potential to use the body, as in athletics or performing arts. Spatial intelligence refers to the ability to manipulate patterns in wide space such as pilots, as well as smaller spaces such as surgeons. Intrapersonal intelligence refers to the understanding of oneself including one’s own desires, fears, and motivations and to use this information in regulating one’s life. Interpersonal intelligence is the capacity to work effectively with other people due to understanding others’ emotions and intentions. Naturalistic intelligence is the ability to discriminate among plant and animal species as well as sensitivity to the environment. Finally, existential intelligence is the sensitivity and capacity to ascertain deep thinking about the meaning of life.

Gardner (1999) wrote, “The theory stimulates teachers and students to be imaginative in selecting curricula, deciding how the curricula are to be taught or ‘delivered,’ and determining how student knowledge is to be demonstrated” (p. 152). The theory of multiple intelligences expanded the view of how humans learn and realize their potentials. Gardner’s theory is a framework for integrating multidisciplinary curriculum and instruction as a whole rather than as separate subjects. Four of the eight

multiple intelligences parallel the arts domains, giving a wealth of support for arts-based learning (Gardner, 1993).

Engaging in the arts, whether it be music, dance, visual art, or drama, draws upon the different learning styles because it supports the multiple skills and abilities of the students (Fiske, 1999). The arts may play an important role in improving a student's ability to learn because it incorporates a range of intelligences and learning styles. The arts hone nonverbal skills such as creativity and imagination while also developing critical thinking skills and vocabulary (PCAH, 2011).

Gardner's (1993) theory parallels the brain research conducted by Jenson (2001). Jenson's research on how the brain works confirms that the arts can increase cognition and are an important avenue for learning. Gardner (1993) and Jenson agreed that the arts provide meaningful ways to challenge each child's individual learning potential. Arts education provides opportunities for engagement of the imagination (Gardner, 1993; Greene, 2000; Jenson, 2001).

The combined theoretical perspectives of arts integration, experiential learning, and multiple intelligences are characteristic of the philosophy of the North Carolina A+ Schools Program. These theoretical perspectives as well as the framework for 21st century learning guided this research study.

Framework for 21st Century Skills

The mission of the North Carolina State Board of Education is that every public school will graduate students who are globally competitive for work and postsecondary education and prepared for life in the 21st century. In 2006, the North Carolina State Board of Education adopted this mission and goals focused around the themes and skills identified in the 21st Century Skills Framework (Arts Education and 21st Century Skills

in North Carolina, n.d.). P21, founded in 2002, in partnership with the U.S. Department of Education and business leaders, created a collective vision, or Framework, for 21st century learning to strengthen American education. The Framework, Figure below, describes 18 different skills, knowledge, and expertise students must master to be successful in school and in work in the 21st century. The P21 (2015) framework represents 21st century student outcomes (indicated by the rainbow) and support systems (indicated by the pools at the bottom).

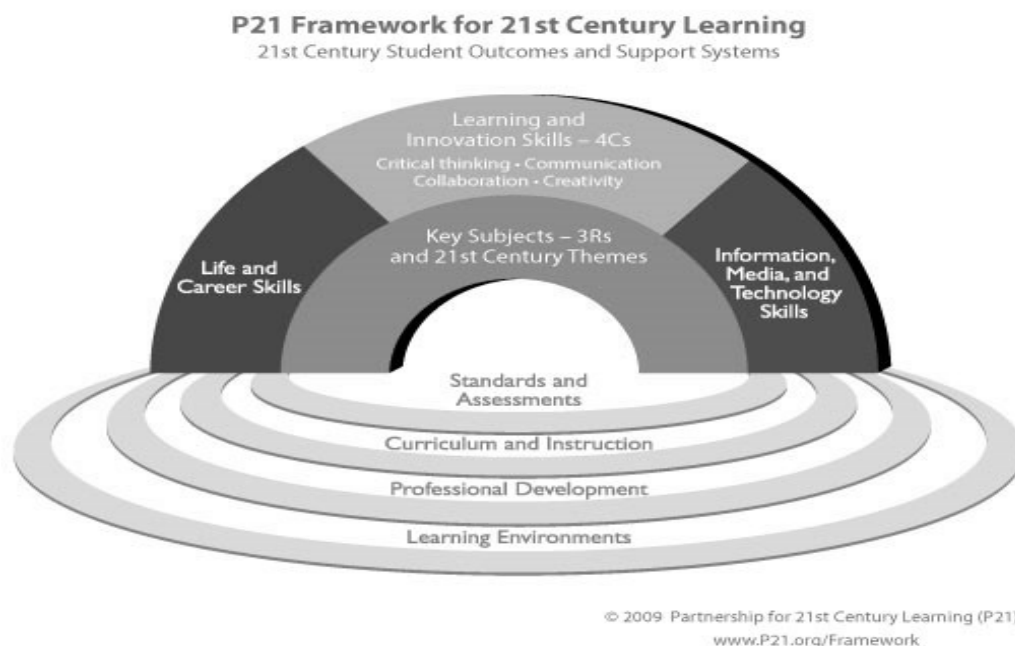


Figure. P21 Framework for 21st Century Learning.

The student outcomes represent the skills, knowledge, and expertise students should master to succeed in work and in life in the 21st century (P21, 2006). Key subjects schools should focus on include English, reading, or language arts; world languages; arts; mathematics; economics; science; geography; history; and government and civics. Academic content of key subjects should promote understanding at a much

higher level by weaving 21st century interdisciplinary themes into them. The interdisciplinary themes include global awareness; financial, economic, business and entrepreneurial literacy; civic literacy; health literacy; and environmental literacy (P21, 2015).

Life and career skills require more than thinking skills and content knowledge. The focus is on the ability to navigate complex life and work environments and requires students to pay attention to developing life and career skills. These skills include flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility (P21, 2015).

Citizens and workers in the 21st century must be able to exhibit a range of functional and critical thinking skills related to information, media, and technology skills such as accessing and evaluating information; analyzing and creating media products; and applying technology as a tool to research, organize, evaluate, and communicate information. Learning and innovation skills focus on creativity, critical thinking, collaboration, and communication (P21, 2015). These skills will be described in greater detail in the section below titled “The 4 C’s: Critical Thinking, Creativity, Communication, and Collaboration.”

21st Century Support Systems

In addition to identifying specific skills and content knowledge needed for the 21st century learner, P21 identified five critical support systems necessary to ensure student mastery of 21st century skills: 21st century standards, assessments, curriculum, instruction, professional development, and learning environments (P21, 2015). The five systems must be aligned to produce a support system that promotes 21st century outcomes needed for today’s students (P21, 2015). The support systems identified by

P21 include the following.

21st century standards. Standards focus on 21st century skills, content knowledge, and expertise. Understanding is built across and among academic subjects as well as 21st century disciplinary themes. Deep understanding, rather than shallow knowledge, is emphasized. Active engagement with real world information students will encounter in college, on the job, and in life is encouraged. Multiple measures of mastery should be allowed.

Assessment of 21st century skills. Demonstration of mastery includes a balance of formative and summative assessments and the development of portfolios. Useful teacher feedback on student performance is embedded into everyday learning. Assessments include a balance of technology-enhanced formative and summative assessments that measure student mastery of 21st century skills.

21st century curriculum and instruction. Twenty-first century skills are taught in the context of key subjects and 21st century interdisciplinary themes. The focus is on providing opportunities for applying 21st century skills across content areas and for competency-based learning. Curriculum and instruction enables innovative learning methods that integrate the use of technologies, inquiry, and problem-based approaches and higher order thinking skills. The integration of community resources is encouraged (P21, 2015). Balls, Eury, and King (2011) ascertained the 21st century curriculum will be interdisciplinary, project-based, and incorporate multiple intelligences and authentic assessments. Student learning will be self-directed, collaborative, and relevant to real world practice.

21st century professional development. Professional development should highlight ways teachers can seize opportunities for integrating 21st century skills and

teaching strategies into their classroom practice, be a balance of direct instruction with project-oriented instruction, illustrate how a deeper understanding of subject matter can enhance 21st century skills, enable professional learning communities (PLCs) that cultivates teacher abilities to address learning styles, and help teachers develop various strategies such as formative assessments and reach diverse learners through differentiation.

21st century learning environments. To foster 21st century skills, environments should create learning practices, human support, and physical environments to foster 21st century skill outcomes. PLCs should enable educators to collaborate and share best practices and integrate 21st century skills into classroom instruction. Students should have equitable access to learning tools, technologies, and resources in order to learn in a relevant, real world context. Community and international involvement in learning, face-to-face and online, is encouraged.

Although the movement toward 21st century skills began more than a decade ago, there is no consensus on the entire set of skills students must know. Some viewpoints focus on media and technology, whereas others concentrate on entrepreneurial and collaboration skills. Leaders in 2010 were interviewed to determine the skills viewed as most important for students (AMA, 2010). There was a common consensus (near unanimity) from the varying viewpoints that four specific skills were the most important: creativity, critical thinking, collaboration, and communication. These skills known as the 4 C's, integrated with a focus on the 3 R's (reading, writing, and arithmetic), are necessary to prepare children for competitive, innovative careers in a complex globalized world (P21, 2015).

The 4 C's: Critical Thinking, Creativity, Communication, Collaboration

P21 (2015) contended,

Learning and innovation skills increasingly are being recognized as the skills that separate students who are prepared for increasingly complex life and work environments in the 21st century, and those who are not. A focus on critical thinking, creativity, collaboration, and communication is essential to prepare students for the future. (p. 3)

Critical thinking. Critical thinking, according to P21 (2015), encompasses the following: various types of reasoning (inductive, deductive, etc.) as appropriate to the situation; how parts of a whole interact with each other to produce overall outcomes in complex systems; analysis and evaluation of evidence, arguments, claims, beliefs, and alternative points of view; connections and synthesis between information and arguments; interpretation of information and drawing of conclusions; reflection on learning experiences and processes; solving of unfamiliar problems in both conventional and innovative ways; and the identification and asking of questions that clarify various points of view and lead to better solutions.

Researchers agreed on the following behaviors as relevant to critical thinking: (a) making decisions or solving problems (Ennis, 1985; Halpern, 1998; Willingham, 2007); (b) making inferences (Ennis, 1985; Facione, 1990; Willingham, 2007); (c) analyzing arguments, claims, or evidence (Ennis, 1985; Facione, 1990; Halpern, 1998); and (d) judging or evaluating (Ennis, 1985; Facione, 1990). McCollister and Saylor (2010) concluded that to integrate critical thinking into daily lessons, teachers should include problem solving, evaluation of resources, questioning requiring critical analysis, and decision-making opportunities.

Critical thinking contributes to career success but also to success in higher education. In research conducted for the Bill and Melinda Gates Foundation, University of Oregon professor David T. Conley (2008) found that key habits such as analysis, interpretation, precision and accuracy, problem solving, and reasoning can be as or more important than content knowledge in determining success in college courses.

In today's 21st century society, critical thinking skills are more important than ever. Levy and Mundane (2004) predicted that the most desirable jobs of this age require expert thinking and complex communication. Levy and Murnane contended the future belongs to people who can excel at critical thinking and solving complex problems.

Creativity. The P21 framework emphasized three components of creativity: thinking creatively, working creatively with others, and implementing innovations. Thinking creatively utilizes brainstorming techniques, creating new ideas, elaborating, analyzing, and evaluating ideas. Working creatively with others entails developing and communicating new ideas, being open and responsive to different perspectives, demonstrating originality and inventiveness, and viewing failure as an opportunity to learn. Implementing innovations is acting on creative ideas to make a tangible contribution to a field (P21, 2015).

Innovative capacity is fast becoming a requirement for personal and professional success according to a report of NEA (n.d.). The report noted that students need to leave school knowing how to create and innovate, or they will be underprepared for the workplace. Robinson (2011) ascertained that creativity is just as important as literacy and should be treated as such. Gardner (2008) stated that to cultivate such a creative mind, an education should feature exploration, challenging problems, and encouragement of mistakes. Creative people are often intrinsically motivated, open to new ideas, and

willing to take risks by asking questions, learning new things, and making mistakes (Russ, 1996; Sternberg, 2010).

Ready to Innovate, a study examining creativity as perceived by superintendents and business leaders, found the participants agreed that creativity is a needed skill in the 21st century workforce, and the arts and communication play significant roles in developing creative thinking skills (Lichtenburg, Woock, & Wright, 2008). Utilizing arts integration in the classroom will help foster creativity (Burnaford, Aprill, & Weiss, 2001). Arts integration gives students the opportunity to synthesize both sensory and cognitive processes to create concrete representations of thought and feeling in the material world (Burnaford et al., 2001). Through creative discovery, the arts can make learning a lively, engaging experience by stimulating a variety of learning styles.

Communication. P21 (2015) defined communication as the ability to articulate thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of forms and contexts; listen effectively to decipher meaning, including knowledge, values, attitudes, and intentions; use communication for a range of purposes (e.g. to inform, instruct, motivate, and persuade); use multiple media and technologies, and know how to assess impact and their effectiveness a priori; communicate effectively in diverse environments (including multilingual and multicultural). (p. 14)

Media and communication technologies make the teaching of strong communication skills more important today than ever. Complex communication involves negotiation, articulation of ideas, and various forms of intense human interaction; jobs that require these skills are not likely to be automated (Levy & Murnane, 2004).

Balls et al. (2011) heralded, “The 21st century will require knowledge generation,

not just information delivery, and schools will need to create a culture of inquiry. Students will be at the center of the process” (p. 133). A successful 21st century education prepares students to develop skills such as critical thinking, interpersonal communication (both written and oral), collaboration, and creativity to be successful in today’s world (McLeod, 2010).

Collaboration. P21 (2015) defined collaboration as the ability to work effectively and respectfully with diverse teams; exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal; assume shared responsibility for collaborative work, and value the individual contributions made by each team member. (p. 20)

The core of collaboration involves participants working together on the same task rather than in isolation (Dillenbourg, Baker, Blaye, & O’Malley, 1996). The quality of the interactions influence participant thinking (Dillenbourg et al., 1996) and may include conflict resolution, problem solving, decision making, and negotiating (Webb & Mastergeorge, 2003). In the past decade, the ability to effectively collaborate has gone from important to essential for students and working professionals due to globalization and the rise of technology (P21, 2015).

P21 (2010), in an effort to offer alignment or intersection of arts content standards and 21st century skills, published the 21st Century Arts Skills Map in collaboration with arts educators. The purpose of the map was to enable educators and policymakers to gain concrete examples of integrating the 21st century skills with content area subjects. The map identifies critical thinking, creativity, communication, and collaboration, in addition to nine other skills that are developed through arts learning (P21, 2010).

Education Reform and Arts Advocates

Arts education, historically, had been viewed as a separate entity from the core curriculum, had questionable value, and was consistently challenged (Burnaford et al., 2007; Cruikshank, 2000; Efland, 2002). The arts were essentially absent during the Common Schools Era, strengthened during the Progressive Era, and have been debated during the 20th century (Burnaford et al., 2001).

During the 21st century, much attention in education has focused on the curriculum and school reform. Educators are tasked with a multitude of decisions regarding what to include and what to delete in the curriculum due to legislative mandates, accountability demands, benefits to students, and time constraints. After the Russians launched Sputnik, the first unmanned space capsule, in 1957, American education reformers placed more emphasis on science, math, technology, foreign languages, and other traditional liberal arts (Tyack & Cuban, 1997). The 1960s and early 1970s saw waves of national school reform efforts aimed at achieving equality, ethnic self-determination, and liberation from bureaucratic controls (Tyack & Cuban, 1997). One of the most influential policies for school reform came during the 1980s when the country was determined to be in a state of risk.

The National Commission on Excellence in Education (1983) found declines in student performance due to inadequacies in the way the educational process is conducted. The report noted that schools continue to educate students in the same way. The findings reflected unsatisfactory quality attributed to the following four areas: (a) diluted, diffused, and homogenized curriculum; (b) low expectations; (c) ineffective use of time spent on school work; and (d) inadequate teacher preparation programs. The *Nation at Risk* report alerted the public to the need for educational reform and provided for federal

initiative. The solution to promoting academic excellence was to create more educational laws targeted toward lazy students and incompetent teachers by extending the school day, increasing academic course requirements, providing more standardized testing, and offering additional standards for evaluating and compensating teachers (Tyack & Cuban, 1997).

Since a *Nation at Risk*, local, state, and federal public officials have been preoccupied with educational reform movements (Heise, 1994). Fifty-four state-level commissions on education were created within the first year of publication (Au, 2013). Within 3 years, 26 states increased graduation requirements, and 35 instituted comprehensive education reforms revolved around testing and increased student course requirements. By 1994, 43 states implemented assessments for students in kindergarten through fifth grade (Kornhaber & Orfield, 2001). By attaching serious consequences to schools that fail to meet standards of NCLB, United States policymakers believe that educators will be motivated to pay closer attention to what is measured on the high stakes tests (David, 2011).

Despite the trends to limit arts education due to increased accountability demands and decreased funding, private foundations have given support for funding in the arts. One foundation, The Arts Education Partnership (AEP), formerly Goals 2000 Arts Education Partnership, is a private, nonprofit coalition of more than 100 national education, arts, business, philanthropic, and government organizations that promote the essential role of arts education. The organization and its partners share a belief that learning in the arts plays an essential role in shaping a complete and competitive education (Fiske, 1999).

Another foundation, the National Endowment for the Arts, which began in 1965,

is one of many nationally recognized organizations advocating arts education by providing funds that promote artistic excellence, creativity, and innovation. The National Endowment for the Arts has led efforts in integrating the arts as part of the core education for all students in Grades K-12 and currently works with more than 20 federal agencies, state and local governments, arts agencies, and private nonprofits to provide opportunities for thousands of Americans to experience quality arts programming (Art Works, 2014).

As research continues to expose the benefits of the arts on student learning, educational reformers have increased their attention on the arts in the classroom setting. As arts advocates continue to push for and provide powerful evidence linking arts education and student achievement, educators continue to develop instructional strategies to integrate arts across the entire school curriculum (Holcomb, 2007). Arts integration is a reform effort currently implemented throughout the country, as defined in Senate Bill 66 (Comprehensive Arts Education Plan, 2010), an approach to teaching in which the arts (dance, music, visual arts, and theater arts) are a catalyst for learning in all curricular areas. A comprehensive arts education includes arts education, arts integration, and arts exposure (Comprehensive Arts Education Plan, 2010). The vision for a comprehensive arts education reads,

In today's globally competitive world, innovative thinking and creativity are essential for all school children. High quality, standards-based instruction in the arts develops these skills and effectively engages, retains, and prepares future-ready students for graduation and success in an entrepreneurial economy. *Dance, music, theatre arts, and visual arts*, taught by licensed arts educators and integrated throughout the curriculum, are critical to North Carolina's 21st century education. (Comprehensive Arts Education Plan, 2010, p. 17)

Reform efforts in public schools in the United States have focused on finding the most effective practices to educate our nation's children. Reformers have attempted to analyze current educational programs and provide advice toward improvement. NCLB embodies the culmination of 20 years of education policy focused on high-stakes, standardized testing aimed at reforming education in America (Au, 2013).

National Standards for Arts Education (Mahlmann, Senko, Blakeslee, & Prosser, 1994) were developed detailing what every student should know in dance, visual arts, music, and theater. This document was a consensus of a consortium of national arts education associations comprised to redesign schools in arts education using the arts as instructional strategies. Because of this achievement, the arts remained as a core subject in one of the largest federal education acts, NCLB. The purpose of this legislation was to close the achievement gaps between students based on achievement test scores and bring all students up to proficiency by 2014 (Sabol, 2010). NCLB included art as a core academic subject that should be taught to all students in conjunction with other core subjects such as math, language arts, and science. This act settled the ongoing discourse to whether the arts have a role in education.

Over the past several decades, the arts have, on occasion, been at the center of ideas pertaining to the restructuring of the curriculum. A consistent picture of the value of arts education has emerged from the body of research over the past several years and repositioned itself as vital importance in providing a complete education. However, in an era when high stakes testing is attached to student promotion and teacher evaluations, core academic subjects take precedence over the arts. Assessing art standards are seen by many as not suited for standardized testing. The arts are viewed as process oriented, not product oriented (Seidel, Tishman, Winner, Hetland, & Palmer, 2009). In an attempt to

reestablish arts education, reformers have suggested teaching the arts across the curriculum.

Value of Arts Integration for Students

The review of literature represented current trends in the field of arts integration. Evidence from meta-analyses, large-scale longitudinal studies, single-site studies, compiled literature reviews, and arts integration research were examined and make up the basis for this review of the benefits of arts integration practices. Some of the original research regarding the outcomes of arts education was questioned as being merely descriptive in nature and lacking adequate analysis of recommendations responsible for outcomes. As a result, studies recently have been updated to include application of techniques used in brain research to better understand how learning in the arts affects the brain and related evidence supporting the school-wide effects of arts integration (PCAH, 2011).

Of great importance for schools trying to close the achievement gap, studies of English language learners, students with special needs, and students from low socioeconomic backgrounds found strong benefits from receiving arts instruction. Meta-analyses such as *Critical Links* (Deasy, 2002) are the summation of 62 research studies that examined the effects of arts instruction on student achievement. The collection focused on the cognitive capacities developed in learning the arts such as thinking and problem-solving skills as well as the transfer of arts skills to other subjects. *Critical Links* indicated that important social and cognitive processes are developed in arts learning experiences (AEP, 2004). The compendium is comprised of detailed research linking student achievement and success with the five major art forms: dance, drama, music, multi-arts, and visual arts on student learning. In addition to academics, the

studies examined changes in student motivation to attend school and growth in student confidence due to arts education. Six major benefits associated with student achievement and the study of the arts were reported in the compendium: reading and language skills, mathematics skills, thinking skills, social skills, motivation to learn, and positive school environment (Ruppert, 2006, p. 10). In its entirety, the studies demonstrated 65 core relationships between arts and education and came at a time when school leaders were challenged by new federal and state laws to implement accountability standards aimed at raising student achievement (Deasy, 2002).

Researchers (Burton et al., 2000; Deasy, 2002; Efland, 2002; Eisner, 2002; Fiske, 1991; Nelson, 2001; Ruppert, 2006) noted numerous benefits of arts integration practices for students. A report by Ingram and Meath (2007) summarized the results of a 4-year longitudinal study implemented by the Arts for Academic Achievement (AAA) at 37 Minneapolis public schools and evaluated by a team of researchers at the University of Minnesota. The study examined the learning outcomes of arts-integrated instruction measured through standardized tests as well as the outcomes that were not obtained through standardized measures. The study found that the AAA program had positive effects on the academic, social, and cognitive growth of the majority of the students. Reported results indicated significant relationships between arts-integrated instruction and improved student learning in reading, especially for students receiving free and reduced lunch and for English language learners. Third- and fourth-grade reading gain scores were reliably higher for students who received arts-integrated instruction (Ingram & Reidel, 2003). For the nonstandardized measures of reading achievement, the students were more engaged in instruction; learned new ways to express themselves; took more risks; and developed empathy, perseverance, and patience (Ingram

& Meath, 2007). These studies suggested that increased instructional time spent on the arts may enhance and not detract from student accountability measurements in other subjects.

Numerous studies indicated arts integration practices increased positive student outcomes for specific subgroup populations such as economically disadvantaged students, underperforming students, and English language learners (Brouillette, 2010; Brouillette & Jennings, 2010; Carger, 2004; Catterall, 2009; Montgomerie & Ferguson, 1999; Spina, 2006). The greatest benefit stemming from arts-integrated instruction was increased communication skills of the English language learners due to an environment conducive for increased risk taking in order to expand their English language skills (Brouillette, 2010; Brouillette & Jennings, 2010; Spina, 2006). Significance of these findings suggested that an arts-based approach to language instruction facilitates the learning of a second language without abandoning the student's first language. Furthermore, studies showed that students with special needs generally show higher levels of achievement, motivation, and engagement in arts-rich schools (Catterall, 2002). Students with learning disabilities struggle with certain academic tasks as a consequence of their lack of ability to use learning and cognitive strategies causing many students to avoid tasks they previously failed (Margolis & McCabe, 2006). Engagement of the arts for special populations found increased self-confidence and participation which may boost academic achievement (Deasy, 2002).

Nearly half of the studies reported in *Critical Links* examined the relationship between literacy and language development and the arts (AEP, 2004). Participation in arts-integrated instruction, namely drama-integrated instruction, improved elementary students' reading readiness, comprehension, fluency (Ingram & Meath, 2007; Ingram &

Reidel, 2003), and oral language development (Podlozny, 2000). When students had an opportunity to engage in dramatic enactments of stories, their overall understanding of the story improved. These effects were greatest for first graders reading below grade level (Page, 2002). In a similar study, the exploration of the meaning of words experienced by students in dance and theater-based reading programs afforded gains in students' overall reading comprehension (Brouillette, 2010; McMahon, Rose, & Parks, 2003); and students were found to be more confident in speaking and using complex language after participating in a drama program (Brouillette & Jennings, 2010). Research also found a positive relationship between visual arts exposure and expressive language ability. Students, when using visual thinking strategies, were found to contribute more to classroom discussions, provide more detailed analyses of concepts (Hui & Lao, 2006), and express their ideas as metaphorical stories using more adult vocabulary when describing their drawings (Heath & Wolf, 2005). These studies indicated how the benefits of the arts can foster the learning in other subject areas.

A positive relationship has been found between arts education and academic outcomes in the areas of mathematics. Smithrim and Upitis (2005) examined the relationship between music and mathematics achievement at the elementary level. Results found students who participated in music- and math-integrated instruction outperformed their peers not receiving such instructional approaches in the areas of comprehension, computation, and application (Smithrim & Upitis, 2005) as well as higher skills in the area of geometry (Spelke, 2008). Findings reported from multiple studies confirmed that students who take music classes in high school are more likely to score higher on standardized mathematics tests such as the Student Achievement Test (SAT). One reason is that musical training in rhythm emphasizes proportions, ratios, and

patterns found in mathematical relationships (Vaughn, 2002).

A national study conducted in 2005 using a federal database of over 25,000 middle and high school students found that students with high arts participation performed better on standardized tests than students with low arts participation. One area of interest described was the relationship between arts participation and SAT scores. Multiple independent studies revealed that increased years of enrollment in art courses are positively linked to higher SAT math and verbal scores. Based on the 2005 SAT results, students who took 4 or more years of arts courses outperformed their peers who had one-half year or less of arts courses by 58 points on the verbal portion and 38 points on the math portion (Ruppert, 2006).

Researchers from Teachers College Columbia University studied 2,000 students in Grades 4 to 8 attending 12 public schools (Burton et al., 2000). Because the arts are taught in a variety of ways in the contexts of the four disciplines—visual arts, dance, drama, and music—and taught by specialists, regular classroom teachers, and external arts specialists, the researchers incorporated all of these approaches into their study rather than narrowing it down. As a result, the study examined a broad spectrum of arts learning. This investigation involved the observation of classrooms, interviews of teachers, and the examination of student work. Researchers classified some schools as “arts-rich” and some as “arts-poor.” This distinction was based on the amount of arts programs the school offered. Researchers found a significant relationship between arts teaching and school climate. Students in the arts-rich schools performed better than those in the arts-poor schools on measures of creativity, elaboration, and originality. These students were also strong in their abilities to express their thoughts and ideas, to take risks, and to use their imaginations. Their teachers described these students as more

cooperative and willing to share their learning publicly. Students in the low-arts schools were less able to extend their thinking. Based on teacher ratings, student support, professional interest, teacher innovativeness, and resources were rated high in arts-rich schools. Teachers and administrators in the study believed the presence of the arts leads to a more enjoyable place to work (Burton et al., 2000).

The Chicago Arts Partnerships in Education (CAPE) offers a variety of services including partnering and training for arts integration in the Chicago Public Schools. The 19 elementary schools participating in the CAPE arts integration model displayed consistently higher average scores on the district's reading and mathematics assessments over a 6-year period as compared to the district elementary schools not involved in the program (Catterall & Waldorf, 1999). CAPE researchers set out to understand student cognitive processes when engaging in arts-integrated instruction compared to traditional instruction (DeMoss & Morris, 2002). They found that compared to traditional methods of arts instruction, arts-integrated lessons reflected more complex cognitive processes and improved students' abilities to assess their own learning. Through arts-integrated units, students were actively engaged in content and expressed no feelings of boredom. The students reported that the arts-integrated lessons created greater intrinsic motivation. Students took more responsibility for their learning in the arts units than in the non-arts units. The arts appeared to remove barriers of competition and correctness, allowing participants to solve problems in ways that they understood (DeMoss & Morris, 2002).

Citing studies from 1932 through 2010, Rinne, Gregory, Yarmolinskaya, and Hardiman (2011) argued that arts integration may support learning by utilizing artistic activities for instruction in other content areas as an effective means of enhancing long-

term retention of information. Studies from a variety of long-term memory effects well-known in cognitive psychology were reviewed. The review of findings and applications suggested that arts integration naturally takes advantage of the eight long-term memory effects examined while promoting student motivation.

Developments in neuroscience within the last 6 years help explain the power of the arts on student learning exploring the ways in which particular practices within the arts disciplines influence student learning and skill transfer. In 2004, the Dana Foundation brought together cognitive neuroscientists from seven universities across the United States to examine the connections between arts training and learning. The 3-year study concluded that there is a direct relationship between exposure to the arts and improved skills in many areas of cognition and attention for learning (Asbury & Rich, 2008). For example, children who were motivated to practice a distinct art form developed improved attention and improved general intelligence (Asbury & Rich, 2008). The field of neuroscience continues to examine the complex ways that arts experiences affect cognitive development.

Catterall, Dumais, and Hampden-Thompson (2012) led a longitudinal follow-up study examining the academic and civic outcomes of teenagers and young adults who participated in arts education programs in or out of school. The findings suggest that teenagers and young adults of low socioeconomic status who have a history of intensive arts experiences show better academic outcomes than do low socioeconomic status youth who have less arts involvement. The advantages of performance of the arts-involved students include better grades and higher rates of college enrollment. The researchers also found that high arts participation is positively connected with test scores, honor society membership, graduation rates, volunteering, and engagement in school or local

politics (Catterall et al., 2012). Catterall et al.'s research suggested that arts-engaged low-income students tend to perform more like average higher income students. As a result, arts education may provide youth from low socioeconomic status with a way to close the achievement gap between low- and high-income students. Results of this landmark study prompted Rocco Landesman, National Endowment for the Arts Chairman, to explain,

[O]ver the past four decades, budget pressures and an increasing focus on just reading and math have crowded the arts out of too many school days. What's lost? The chance for a child to express himself. The chance for the idiosyncratic child who has not yet succeeded elsewhere to shine. A sense of play, of fun, of discovery. James Catterall and his fellow authors have shown that something else is lost, too: potential. Students who have arts-rich experiences in school do better across-the-board academically, and they also become more active and engaged citizens, voting, volunteering, and generally participating at higher rates than their peers. (Catterall et al., 2012, p. 5)

The literature review revealed a correlation of the interconnectedness of arts integration practices and benefits for students.

Value of Arts Integration for Teachers

In addition to the benefits arts integration practices have for students, studies carried out by Werner and Freeman (2001) on the effects of arts integration on teaching practices produced significant results in two areas: changes in the ways teachers conceptualize how learning takes place in the classroom setting and changes in the choices of instruction. Within teachers' conceptualization, they made room for integration, despite barriers; use varied resources to teach; created more child-centered

learning experiences; and thought more positively about the classroom climate. Involving instruction, teachers were more likely to take risks, make additional connections to the core curriculum, build additional teaching skills, and reenergize their method of teaching (Werner & Freeman, 2001).

Catterall and Waldorf (1999) examined teacher, student, and administrator attitudes of the CAPE integrated arts program. They found positive changes in school climate to include such qualities as principal support and leadership, positive collegueship, widespread participation in decision making, and focus on instruction. Benefits from 10 case studies serving at-risk students conducted by Stevenson and Deasy (2005) found that strategies used in arts integration can improve schools by connecting schools to their communities. These findings of increased teacher satisfaction and efficacy, improved school culture and climate, and better connections with parents and the community provide evidence that there are benefits for the entire school environment when arts are at the center of the curriculum (Stevenson & Deasy, 2005).

A longitudinal analysis of the North Carolina A+ Schools Program found the beneficial effects of the program go beyond student outcomes to focus on teacher collaboration and enhanced relationships with parents and the community (Nelson, 2001). Another evaluation of the A+ Schools Program concluded A+ Schools developed different cultural identities with the arts and focused on what the arts could contribute to the school. Professional development programs were designed to engage the entire school staff in exploring the role of arts in instruction. Professional artists' involvement in professional learning added to the skills repertory of teachers as well as improved classroom management skills (Deasy, 2002; Stevenson & Deasy, 2005). Furthermore, networking of the A+ Schools offered support and challenged them to be innovative. The

A+ Schools in the study also had significant gains in student achievement (Corbett, McKinney, Noblit, & Wilson, 2001).

Oreck (2004) examined teacher perceptions, attitudes, and factors that support or constrain the use of arts in the classroom. Teachers cited three conditions critical to incorporating arts practices into their lessons: adequate time to plan, support from supervisors, and adequate space. The study found teacher attitudes and beliefs enabled them to utilize the arts despite pressure to standardize instruction. Teachers were motivated by professional development programs to increase their ability to teach the arts, fostering increased risk taking, enhanced confidence, and increased enjoyment in teaching (Oreck, 2004).

Teachers who engage in arts integration practices find students who are motivated and engaged in learning (Cornett, 2007; Fiske, 1999; Noblit et al., 2009; Stevenson & Deasy, 2005), thus making teaching more enjoyable (Noblit et al., 2009; Oreck, 2004). Teachers are afforded autonomy in presenting content (Davis, 2008; Oreck, 2004), find improved teacher-student relationships (Oreck, 2004), and are able to accommodate diverse learner needs (Cornett, 2007; Stevenson & Deasy, 2005).

Concerns and Challenges of Arts Integration

Despite evidence of the value of integrating the arts, historical tensions exist between arts integration and traditional practices of arts education. Since the middle of the 20th century, in the midst of cuts in arts education due to budgetary constraints and educational movements such as “Back to Basics” to high-stakes testing, arts educators have lobbied for arts in education (Jensen, 2001). Critical concerns expressed by advocates of the traditional compartmentalized approach to teaching arts are that the arts will become trivialized if they are taught through the perspectives of other subjects

(Kindler, 1987; Wiggins, 2001). Hope (2003) found that integrating the arts, as opposed to presenting them as disparate subjects, does not produce a negative effect on student academic performance.

Critics of arts integration also have concerns about the lack of empirical research to support the claims that arts-integrated curricula are effective in terms of student achievement (Hetland & Winner, 2000). Hetland and Winner (2000) concluded that sometimes arts-integrated practices led to improvements in an academic subject; however, the gains were not significant when compared with a traditional approach to teaching the same subject. A growing body of research, however, argues that higher academic achievement gains are attributed to arts integration practices such as those reported in Fiske (1999). This compilation of seven studies shows correlations between high levels of arts participation and higher test scores in reading and math. Furthermore, learning in and through the arts helps to level the playing field for disadvantaged students (Fiske, 1999). Research has revealed that what is learned in the arts can be used to master other academic subjects such as reading, math, or social studies (Ruppert, 2006).

Further support for arts integration from the compendium initiative, which was created in conjunction with the President's Committee on the Arts and Humanities, came from studies that explored the changes that occur when young people experience the arts. The President's Committee was created in 1982 to encourage private sector support and to increase public appreciation for the arts and humanities (Fiske, 1999). Former United States Secretary of Education, Richard Riley stated,

Champions of Change: The Impact of the Arts on Learning provides new and important findings on actual learning experiences involving the arts. The report which follows presents these research findings, complete with ground-breaking

quantitative and qualitative data and analysis, as articulated by leading American educational researchers. These researchers investigated the content, process, and results of learning in and through the arts. Perhaps what makes their findings so significant is that they all address ways that our nation's educational goals may be realized through enhanced arts learning. As the researchers discovered, learning in the arts can not only impact how young people learn to think, but also how they feel and behave. (Fiske, 1999, p. vi)

Evidences collected through multiple research studies, such as those conducted from this partnership, found positive outcomes connecting the arts to academic achievement (Deasy, 2002; Fiske, 1999).

Another concern for arts integration involves the time required for teachers to collaborate which is an essential component for arts integration (Whitaker, 1996). Teachers reported that demanding schedules left them with no additional time to develop creative arts integration lessons (Russell & Zembylas, 2007). However, personal experiences of many classroom teachers detail the benefits that exposure to the arts provides. For example, Oreck (2004) found that teachers in general believe that the arts experiences are beneficial to students, and they expressed increasing enjoyment of arts-integrated teaching. Similarly, teachers in studies reported their roles in arts programs and instruction positively changed their attitudes toward and perceptions of students (Deasy, 2002), as well as their relationships with students as having improved in arts-rich schools (Burton et al., 2000).

Other obstacles to arts integration include teacher low levels of self-efficacy with arts integration (Oreck, 2004); the cost of implementation (Grant, Hutchison, Hornsby, & Brooke, 2008); and the time diverted from state assessments (Noblit et al., 2009).

However, an interview study by Kornhaber, Mishook, Edwards, and Nomi (2006) explored the impact of testing policy on untested areas of the curriculum and found arts education, an untested area of the curriculum, was not marginalized. The study investigated 10 arts-focused public schools in Virginia to determine the impact high-stakes testing had on the curricula. A common response from the interviewees was that no change in time, resources, or scheduling had occurred to undermine the arts instruction. “[I]ntegration of arts and academic curriculum was valued as a tool to improve recall of tested material” (Kornhaber et al., 2006, p. 59). Principals attributed the positive influence of testing and accountability on the arts to the following: professional development of arts-integrated practices; authentic assessments which included content from the tested subjects; appreciation of the arts by parents who supported art as an academic subject; and a shared vision of the value of arts education. Information from Kornhaber et al.’s (2006) study is important because it demonstrates a contrasting view to numerous literatures suggesting teachers narrow the curriculum by spending more time teaching areas of the curriculum such as mathematics and reading, which are tested.

Teachers in the Oreck (2004) study cited three conditions essential to arts integration: adequate time to plan and teach, adequate space, and support from administrators. Oreck also concluded that neither prior arts instruction, artistic practice, nor years of teaching experience were related to arts integration. In contrast, studies such as Noblit et al. (2009), in the evaluation of the North Carolina’s A+ Schools Program, found that professional development programs that included the entire school faculty created an environment to support innovation and change. Professional development opportunities in the arts strengthened teachers’ self-image and self-efficacy deepening

their understanding and practices in the arts (Oreck, 2004).

Chapter Summary

At both the state and national levels, there has been increased attention on the value of arts in education. Arts education has emerged from the educational-reform movement as an integral part of the education of students. The researcher found two contradictory trends in the field of art education. In one position, arts educators wrestle to maintain their grasp on sustaining the arts despite the movement toward higher academic standards in other subjects, accountability demands, and budget cuts. On the contrary, there is an increasing and significant body of research demonstrating the value of arts education for students, teachers, and school communities. This research indicated high-quality arts instruction is an essential component of a complete educational program preparing children for the complex demands of today's society. The findings in this literature review indicated the study of arts contributes to student achievement and demonstrates the importance and significance of arts education in the comprehensive education for all students. Multiple benefits include academic, social, and motivational gains. Arts integration practices contribute to student learning by providing a connection between different academic subjects. Similarly, arts integration practices promote collaboration among teachers through networking, enhance student-teacher relationships, foster family and community support, and provide teachers with multiple avenues to reach diverse learners by drawing on a range of learning styles.

Numerous research indicated that arts integration practices maximize the benefits of education on student learning (Heath & Wolf, 2005; Ingram & Meath, 2007; Rabkin & Redmond, 2006; Smithrim & Uptis, 2005), especially for specific subgroup populations (Brouillette, 2010; Brouillette & Jennings, 2010; Carger, 2004; Catterall, 2009;

Montgomerie & Ferguson, 1999; Spina, 2006). The value of arts integration has gained the recognition of federal lawmakers (PCAH, 2011) as a model for creating enhanced learning opportunities for students (Noblit et al., 2009).

To be competitive internationally in the 21st century, education in America should prepare students with skills such as creativity, critical thinking, collaboration, and communication (McLeod, 2010). The North Carolina A+ Schools Program implements arts integration programs and practices grounded in the 21st century skills needed to prepare students for 21st century workplaces and the community (A+ Schools Program and 21st Century Skills, 2008). Despite student accountability measures and sanctions imposed by NCLB, the A+ Schools Program continues to expand. Studies of the North Carolina A+ Schools Program indicated consistent gains in student achievement in reading and math and increased engagement of parents and the community (Noblit et al., 2009).

This qualitative case study addressed teacher perceptions as well as the strategies and/or methods used to implement a school-wide arts integration program in relation to student acquisition of the 4 C's. Supported by the theoretical perspectives that form the framework of the A+ Schools Program, the study concentrated on teacher participants from an A+ charter school in western North Carolina.

Chapter 3: Methodology

This chapter outlines the method the researcher orchestrated to conduct the case study. It begins with a review of the purpose for the study and the questions guiding the research. Next, the methodology design, role of the researcher, and research site are discussed. A description of the methodology includes the instruments used and the data collection and analysis procedures. Finally, methods for verification and a chapter summary are provided.

Research Design and Rationale

The methodological design for this study utilized a qualitative approach “for exploring and understanding the meaning individuals or groups ascribe to a social or human problem” (Creswell, 2014, p. 4). Qualitative data collection and analysis concentrated on teacher perspectives of their experiences fostering creativity, critical thinking, collaboration, and communication through the arts integration programs and practices at a North Carolina A+ charter school. To gain an in-depth understanding of participant perceptions, a case study was employed allowing the researcher to gather multiple sources of information from focus-group interviews, one-on-one interviews, observations, and document analysis. A case study, as defined by Merriam (2009), “is an in-depth description and analysis of a bounded system” (p. 40) with the aim of uncovering “the interaction of significant factors characteristic of the phenomenon” (p. 43). The case, or charter school, for this study is bounded, or surrounded, by its specific programs and practices, thus making it unique to this particular context.

The issue of generalization in a case study appears frequently in the literature. There is criticism of case study research due to application or generalizability to a wide audience (Tellis, 1997). Fitzpatrick, Sanders, and Worthen (2010) noted generalization

of case studies to other settings is not the goal. The focus is on the views and experiences of the participants. However, Stake (1995) explained how case studies illuminate the understanding of experiences, thus reinforcing or modifying an existing generalization by bringing about the discovery of new meaning. This new meaning, in turn, may lead to generalizations when new data are added to existing data. Insights from this study may be used by the educational community to better understand the relationship of arts integration programs and practices and how they relate to the 4 C's.

A qualitative method is required because the overall purpose is to construct meaning from participant perceptions and experiences (Merriam, 2009). Using a constructivist viewpoint, the researcher looked for the meaning individuals have created within their contexts by allowing participants to reflect on and evaluate their practices resulting in co-constructed understandings. A case study has a distinct advantage over other qualitative methods when the researcher seeks answer to "how" and "why" questions (Yin, 2008, p. 8). Data collection methods allowed the researcher to ask broad, general questions and record the data as descriptive narrative (Creswell, 2014). This detailed description is needed for the reader to better understand teacher perspectives of their experiences promoting the 4 C's through the practice of arts integration at a kindergarten through eighth-grade North Carolina A+ charter school.

The researcher selected a single unit, or case, and was granted permission for the study. The permission form is found in Appendix B. Whereas there are multiple A+ Schools utilizing arts integration practices that the researcher could include making it a multisite case study, the particular site, designated in this study as "Arts School," was "selected for its very uniqueness, for what it can reveal about a phenomenon, knowledge to which we would not otherwise have access" (Merriam, 2009, p. 33). The identified

school offers a successful example or model of arts integration practices and programs. The site is the only charter school in North Carolina to receive a state-level School of Excellence Award for demonstrating high-quality arts integration programs for all students. Furthermore, the school's philosophy, improvement plan, and student report cards indicate the integration of 21st century skills into their arts programs and practices. As a result, the Arts School needed to be examined to better understand how the school-wide practice of arts integration supports the effective teaching of 21st century skills such as creativity, critical thinking, collaboration, and communication. Furthermore, this study addressed the gap in the literature among the relationship of arts integration practices and 21st century skills.

Research Questions

The guiding question for this study was, "What is the impact of a school-wide arts integration program on creativity, critical thinking, collaboration, and communication?"

The research focused on three questions.

- RQ1. What strategies/methods are used to implement a school-wide arts integration program at this school?
- RQ2. What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school?
- RQ3. What 21st century support systems align with the school-wide arts integration program at this school?

Role of the Researcher

The role of the researcher in this study was that of observer, interviewer, transcriber, and analyzer. The researcher is a National Board certified elementary school teacher, holds teaching licenses at the elementary and middle school level, and has

worked at a North Carolina A+ elementary school for the past 10 years practicing and sustaining arts integration as well as promoting student acquisition of 21st century skills. This knowledge and experience with varied art forms assisted in understanding the related literature, creating research instrument protocols, sustaining dialogue and questioning during the interviews, analyzing documents, and supporting further facilitation of the research study. The researcher conducted a pilot study at her current school and was the exclusive collector of data for the main study, which occurred at a different school. The researcher has participated in A+ workshops with educators from the participating school and has developed a relationship of support and mutual respect with some of the participants in the study.

Description of the Setting

The site, a kindergarten through Grade 8 A+ charter school, was selected because of its exemplary school-wide arts integration practices and documented evidence that the school promotes the 4 C's of 21st century learning. Charter schools are public schools funded by taxpayer dollars and operated by private nonprofit boards. These schools are tuition-free and must design their programs to at least meet the student performance standards adopted by the State Board of Education. Charter schools are held to the same accountability model as traditional public schools. However, charter schools have autonomy in educational planning and in the design of their programs (Office of Charter Schools, 2014). Not all charter schools are members of the A+ schools network. The A+ schools network has both charter and public schools as members.

The research site is a Title 1 school located in western North Carolina. As a Title 1 school, services are provided to students who are behind academically or are at risk of falling behind (U.S. Department of Education, 2015). For the sixth consecutive year,

state test scores have continued to improve, making the school one of the top scoring schools in the district.

Sampling Procedures and Participants

Patton (2002) explained that purposeful sampling lies in selecting *information-rich* cases for in-depth study allowing the researcher to “learn a great deal about the issues of central importance to the purpose of the inquiry” (p. 440). Creswell (2013) recommended criterion sampling because it is essential that all participants have experience of the phenomenon being studied. The researcher established the following criteria when selecting participants: (a) be a teacher or administrator at the site for at least 2 years, (b) be willing to be interviewed and tape recorded reflecting on experiences implementing arts integration practices, (c) be willing to be observed, and (d) be an active participant in the data collection and interpretation process. The representation of varied grade levels, subject areas, and experience allowed for a broad perspective of educator experiences with arts integration. The data in Table 3 provide background information on the nine participants interviewed for the study.

Table 3

Interview Participant Background Information

Participant	Grade/Subject	Experience		Educational Degree
		Years in Teaching	Years at Arts School	
T 1	K-8 Theatre Arts	18 years	8 years	BS Theatre Arts MA Theatre Arts
T 2	K-8 Music	4 years	3 years	BS Music Education Certified K-12 Band, Chorus, Orchestra
T 3	7/8 ELA	20 years	2 years	BA Comparative English and French Literature MA Secondary Language Arts
T 4	K-8 Dance	15 years	2 years	BA Interdisciplinary Studies MFA Dance and Choreography
T 5	6th Math & Science	20 years	15 years	BS Biological Anthropology MA Elementary Education
T 6	6th ELA & SS	15 years	14 years	*BA Humanities
T 7	K-8 Technology	25 years	15 years	BS Elementary Education MA Library Science K-12, Instructional Technology K-12
P 8	Enterprise & Development Manager	15 years	13 years	*BS Theatre and Communications MA Business Administration
P 9	Site Administrator	25 years	15 years	*BS Communications MA Arts Education

Note. T=Teacher; P=Participant; K=Kindergarten; ELA=English Language Arts; SS=social studies; BA=Bachelor of Arts Degree; BS=Bachelor of Science Degree; MA=Master of Arts Degree; MFA=Master of Fine Arts; *=Teaching Fellow.

The participants comprised experienced teachers, beginning teachers, and teaching artists. All teachers meeting the criteria previously addressed were asked to participate in an interview scheduled at a time of convenience. The teachers, noted in Table 3, are arts specialists or middle school teachers. Elementary-level teachers did not volunteer for an individual interview.

For case study research, Creswell (2013) recommended the sample size to be no more than four or five cases within a single study to provide ample opportunity to identify themes but not dilute the level of detail. This study used purposive sampling utilizing the criteria established for the purposes of the research. Volunteers provided consent to participate and were informed they could withdraw from the study at any time. The consent to participate form is found in Appendix C.

Instrumentation

Qualitative case study data collection is conducted in the participant's natural setting to better understand the phenomenon in a real-life context (Creswell, 2013). The researcher conducted qualitative inquiry at the school site to seek answers to the research questions using focus group and individual interviews, direct observations, and written documents (Creswell, 2013; Merriam, 2009). Table 4 provides the alignment of the research questions with the instruments and data collection tasks that were utilized to answer the questions for this study.

Table 4

Alignment of Research Questions with Data Instruments

Research Questions	Instruments	Data Collection & Analysis
<p>Guiding Question: What is the impact of a school-wide arts integration program on creativity, critical thinking, collaboration, and communication?</p> <p>Subquestions include</p> <p>1. What strategies/methods are used to implement a school-wide arts integration program at this school?</p>	Interviews	A semi-structured interview guide created by the researcher was utilized to address the research questions. Interviews were audiotaped and transcribed. Coding procedures were utilized to identify significant statements and identify patterns and themes. Member checking was conducted to increase validity of the study.
<p>2. What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school?</p>	Focus Group Interview	One focus group interview was conducted by the researcher to answer the research questions. The group interview was audiotaped, transcribed, and verified for accuracy through member checking and peer review.
<p>3. What 21st century support systems align with the school-wide arts integration program at this school?</p>	Observations	Informal observations were conducted at the site and field notes were taken documenting the 4 C's and 21st century support systems. Site observations included, but were not limited to, the following: staff meetings, Arts Integrated Team (AIT) meetings, programs and events, school and classroom walkthroughs, curriculum and instruction, assessments, professional development activities, resources, organizations.
	Document Review	The review of documents provided a wide range of material to analyze that was relevant to the study. Documents included meeting minutes, meeting agendas, school brochure, School Improvement Plan, vision and mission statements, lesson plans, teacher newsletters, report card template, school website, and parent handbook.

Individual interviews, focus-group interviews, site observations, and document

review were the methods utilized to answer the research questions. The multiple sources of data allowed for triangulation to support the validity of the study. Peer review and member checking aided in the interpretation of responses and analysis of results.

Focus-group interviews. Focus-group interviews, as defined by Merriam (2009), are based on the constructivist perspective in which the interaction of the group underlies the data collection procedure. Patton (2002) expressed, “The object is to get high-quality data in a social context where people can consider their own views in the context of the views of others” (p. 94). Focus-group interviews allow the participants to hear other member’s responses, so they can in turn make additional comments relevant to the topic. The eight members of the AIT participated in a focus-group interview to ascertain the involvement of the 4 C’s in the practices of arts integration. Appendix D outlines the Focus-Group Interview Protocol.

Interviews. For the purpose of gaining rich, thick descriptions of participant experiences, the researcher conducted in-depth interviews to gain additional information from the individuals who have experienced the phenomenon (Creswell, 2013). In-depth interviewing, indicated by Merriam (2009), is the act of representing the essence of the human experience. Butin (2010) suggested interviewers try to get respondents to discuss “their experiences, feelings, and intuitions surrounding the issue” (p. 97). A semi-structured interview guide, or schedule, was created before the focus-group interviews relating to the research questions. Additional follow-up questions were added to the Interview Protocol Guide, found in Appendix E, based on discussions and topics generated during the focus-group interviews in order to gain a deeper understanding of the teachers’ perceptions. “[M]ost interviews in qualitative research are semi-structured” allowing the interviewer to ask specific general questions; open-ended and follow-up

questions; “and perhaps a list of some areas, topics, and issues that you want to know more about but do not have enough information about at the onset of your study to form specific questions” (Merriam, 2009, p. 103). Participants were provided with the interview protocol prior to the interview. The semi-structured interview allowed for conversational communication, and questions were rephrased and added as needed. The interview questions were refined for participant understanding and depth of questioning after they were piloted at the researcher’s school. Table 5 displays the alignment of the research questions with the interview questions.

Table 5

Alignment of Research Questions and Interview Questions

Research Questions	Aligned Interview Questions
1. What strategies/methods are used to implement a school-wide arts integration program at this school?	1. Describe the A+ Schools Program at your school. 2. What does the school-wide arts integration program look like? 3. What strategies and methods do you use to implement a school-wide arts integration program? 4. Describe how you plan for arts integration. 5. Talk about A+ professional development at your school. 6. Describe the support systems in place for the arts integration program. 7. What does success look like at your school? 8. Is there anything you would like to tell me about the arts integration program at your school?
2. What strategies/methods are used to foster student acquisition of the 4 C’s through arts integration at this school?	9. Does the school’s philosophy of arts integration reflect Collaboration? Communication? Creativity? Critical thinking? If so, how? 10. Is there anything you would like to share about arts integration practices or 21st century skills that you haven’t already shared?

Adhering to the constructivist framework, the interview questions were designed by the researcher to be broad and general and to portray the participants’ views of the

situation being studied (Creswell, 2014). The open-ended questions allowed for participant reflection and evaluation of practices to better understand the meaning individuals have created within their contexts.

Observations. Observations are used to better understand the culture, setting, or social phenomenon being studied from the perspectives of participants (Hatch, 2002). The researcher, a nonparticipant observer, created the Observation Protocol, displayed in Appendix F, to record field notes identifying the practices and programs of arts and the 4 C's. The purpose of the informal site observations was to better understand the arts integration practices and programs' alignment with the 4 C's and support systems.

Document review. A document, according to Merriam (2009), refers to a "wide range of written, visual, digital, and physical material relevant to the study at hand" (p. 139). The researcher created the Document Review Protocol, located in Appendix G, as a guide for document collection and review. This tool is aligned to the research questions and aids in the collection of documents relevant to the 4 C's and their relationship with arts integration practices and programs. Documents afford the opportunity to cross-reference interviews and observations as well as provide a catalyst for in-depth questioning during interviews.

Data Collection Steps

Prior to data collection, the researcher followed protocols for research by obtaining Institutional Review Board (IRB) approval and permission from the school to conduct the study. Furthermore, the researcher conducted a pilot study to test the interview protocol and become familiar with the interview data collection process as a whole. To understand the experiences and interpretations of the participants, the researcher employed key processes and procedural steps for data collection as outlined by

Merriam (2009) and Creswell (2013). Using these steps as a guide, the researcher implemented the following.

1. The researcher met with the site administrator of the charter school to discuss the possibility of conducting the study at the site. The researcher, upon proposal approval, attended a school staff meeting and invited potential participants to volunteer for the study. The purpose of the investigation, as well as the nature of the study, was explained. Participants were able to ask questions of the researcher in order to gain complete understanding of the study. Those individuals interested in participation provided an email contact address. An email was sent to the interested participants.
2. Informal visits to the site occurred initially to better acquaint the researcher to the study site and were followed by targeted observations (Merriam, 2009). Observations were conducted throughout the school, during team meetings, and during events and programs held at various times. The Observation Protocol was used to record raw data or field notes for future analysis. The researcher audiotaped on-site observations to have a more complete record of the observation. Furthermore, “it is imperative that full notes in a narrative format be written, typed, or dictated *as soon after* the observation as possible” (Merriam, 2009, p. 129). The researcher wrote a detailed description of the observation immediately afterward which included the time, place, and purpose of the observation, as well as any researcher interpretations for future analysis.
3. Once candidates were identified, the researcher obtained participant signed consent forms to provide certainty of personal information, responses, and

reporting and began arranging an interview schedule. Participants were informed of their rights prior to each interview, assured that all information would be kept confidential and anonymous, and they could withdraw participation at any time. Participants received a code assigned by the researcher for data collection and recording purposes. The codes were used for all field notes, written documents, and to label interview files.

4. The researcher conducted semi-structured, in-depth interviews with the participants to understand their experiences of the phenomenon in the school setting where these experiences take place. Hatch (2002) recommended researchers enter interviews with guiding questions and be prepared to follow the leads the respondents generate. All interviews were audio recorded regardless of type and transcribed.
5. Members were provided with copies of their interview transcripts to make sure they were in agreement and were accurate with the experiences (Hatch, 2002). The participants were asked to review these items to check for verification as well as any contradictions and to discuss their findings with the researcher.
6. The researcher requested and reviewed documents related to arts integration and the 4 C's throughout the data collection process. Documents reviewed included A+ materials, lessons, planning meeting minutes, staff meeting agendas or minutes, school report card, communications to parents and the community, schedule of events and programs, school brochure, and website.

Data Analysis

The purpose of this qualitative, single case study was to describe teacher perceptions of the alignment of arts integration practices and programs with the 4 C's.

Data analysis is the process used to make meaning from the data (Merriam, 2009). The data set analyzed consisted of transcribed interviews, field notes, and documents.

Merriam (2009) contended that data collection and analysis must be conducted simultaneously in qualitative research. Creswell (2014) outlined six stages for analyzing qualitative data. The stages and the processes the researcher utilized at each step are outlined below.

1. **Organize and Prepare Data:** Data were collected using the researcher-created protocols for observations, interviews, and documents. Data, including documents, were sorted and stored in a file cabinet to which only the researcher had access. Audiotapes were transcribed and filed in a Word document according to name, time, and location for easy access. All electronic files had a backup.
2. **Read for Overall Impression:** Data analysis was conducted throughout the collection; and researcher notes, initial thoughts, and reflections were recorded on the instrument protocols. The researcher reread all data when the collection process was complete for general impressions and to reflect on the overall meaning.
3. **Code and Categorize:** Coding, the process of organizing data by representing it in the margins as a word (Creswell, 2014), was utilized using predetermined codes such as Teacher (T) and emerging codes as information in the study developed. Each interview, document, and set of field notes was coded, or

broken down into bits of information, for ease of analysis and reporting. When assigning categories, Merriam (2009) suggested “having a conversation with the data” by asking questions of it and making comments to it that are relevant to the research questions (p. 178). Assigning codes to pieces of data is the beginning stage of category construction (Creswell, 2013). Saldaña (2013) stated, “Qualitative inquiry demands meticulous attention to language and deep reflection on the emergent patterns and meanings of human experience” (p. 10). Following the initial coding, the researcher applied focused coding by establishing categories and subcategories based on thematic or conceptual similarity (Saldaña, 2013). Finally, axial coding was applied to explore the relationships among the categories and subcategories. In axial coding, the researcher used the identified concepts and categories to confirm the categories were accurately represented in participant responses and to explore how the concepts were related (Creswell, 2014). Saldaña stated, “Axial coding is appropriate for studies employing grounded theory methodology, and studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, video)” (p. 218). Auerbach and Silverstein (2003), as cited by Saldaña, recommended having the research questions, theoretical framework, and goals of the study in plain sight when making coding decisions. The data obtained from the interviews were examined to discover and develop clusters of meaning from the significant statements into themes (Creswell, 2013).

4. Generate a Description/Theme: A theme is a sentence or extended phrase that identifies the data. The coding process allowed the researcher to generate a

theme and a description of the setting and participants for analysis. Themes can be found by looking at repeating ideas, terms, metaphors, similarities, and differences. Rich, thick description was eventually rendered by the researcher to make meaning of the data.

5. Interrelate Descriptions/Themes: Themes were analyzed across multiple instruments to form connections. Findings were reported through tables, figures, or narrative to convey the interconnecting themes.
6. Interpret the Meaning of Descriptions/Themes: The meaning from the data analysis was derived and emergent themes were identified to answer the research questions based on observations, document review, and participant interviews. Creswell (2013) proclaimed, “Interpretation in qualitative research involves abstracting out beyond the codes and themes to the larger meaning of the data” (p. 187). This process entails using the developed codes to formulate themes, and then organizing the themes into larger units to make sense of the data.

Pilot Study

A pilot study was conducted with two volunteers who teach at a North Carolina A+ School similar to the one that was used in the main research. The purpose of the pilot study was to test the interview protocol before using it with the actual sample and to improve the researcher’s interviewing skills. Based on answers to the interview questions, which were audiotaped, as well as additional feedback from the volunteers regarding the questions asked during the interview, adjustments were made to the interview questions in order to gain a deeper understanding of participant perceptions. It was determined that original questions were too broad and could be narrowed to ask

questions related to each specific 21st century skill under investigation. For example, the original question, “How does the school’s philosophy of arts integration reflect 21st century skills?” was revised to read, “How does the school’s philosophy of arts integration reflect the 21st century skill of creativity?” The revised questions allowed the interviewee to respond to specific 21st century skills, the 4 C’s, which were the focus of the study. The researcher also reorganized some interview questions based on the pilot test and organized similar questions under related headings. For instance, questions related specifically to assessment practices of arts integration and 21st century skills were grouped together under the appropriate heading. An additional suggestion from one participant in the pilot study was to provide the interview questions to the interviewee in advance of the interview. The purpose was for the interviewee to gather thoughts and ideas before the interview, allowing for increased elaboration and detail in responses. As a result, the researcher provided the interview questions at least 1 day before the scheduled interview. Furthermore, the researcher gained skills in interviewing and transcribing as a result of the pilot study.

Validation Strategies

Because “qualitative researchers can never capture an objective ‘truth’ or ‘reality,’” (Merriam, 2009, p. 215), there are a number of strategies researchers can use to increase the credibility of their findings. Creswell (2013) defined validation in qualitative research as an attempt to assess the accuracy of findings described by the researcher and the participants. Creswell recommended qualitative researchers engage in at least two of the following eight validation strategies for a given study: (a) prolonged engagement and persistent observation; (b) triangulation; (c) peer review or debriefing; (d) negative case analysis; (e) clarifying researcher bias; (f) member checks; (g) rich,

thick description; and (h) external audits. For the purposes of this study, the researcher employed the strategies of triangulation; member checks; rich, thick description; and peer review.

Triangulation is a strategy used to compare and cross-check multiple data collected through interviews, observations, and documents (Merriam, 2009). “If themes are established based on converging several sources of data or perspectives from participants, then this process can be claimed as adding to the validity of the study” (Creswell, 2014, p. 201).

Member checking, also called respondent validation, involves soliciting feedback on findings from the interviewees to rule out the possibility of misinterpretation (Merriam, 2009). Lincoln and Guba (1985) considered member checks to be “the most critical technique for establishing credibility” (p. 314). Member checking was applied in this study by emailing each individual the final transcript of his or her interview to judge the accuracy and credibility of the analyses and interpretations. Appendix H is the email letter sent to participants.

Rich, thick description enables readers to imagine themselves in each described setting (Creswell, 2013). Because the writer describes in detail the participants or setting (Creswell, 2013) under investigation, the reader is able to make decisions regarding transferability of the findings and allow them to be involved in the shared experience (Creswell, 2013). Participant perceptions and experiences are reported in Chapter 4 using detailed descriptions, respondent quotes, interconnected details, and the use of strong action verbs as suggested by Creswell (2013) to create a clear picture for the reader. According to Merriam (2009), rich, thick description facilitates transferability of the study because the reader is able to determine the extent to which their situations match

the research context.

Peer debriefing or review provides an external validation check of the research process (Creswell, 2013). Merriam (2009) described this process as “asking a colleague to scan some of the raw data and assess whether the findings are plausible based on the study” (p. 220). The researcher solicited a doctoral candidate at Gardner-Webb University to serve as the devil’s advocate by asking probing questions relating to research methods, meanings, and interpretations (Lincoln & Guba, 1985).

Ethical Considerations

The researcher completed the CITI training offered by Gardner-Webb University’s IRB. The names of the district, school, and the participants were changed to protect anonymity and coded by numbers or aliases (Creswell, 2013) to protect the identity of the school and staff. Participants were provided with a consent form conveying the purpose and nature of the voluntary study and that withdrawal at any time was an option. Information from interviews was not published without the approval of the interviewee for authenticity and accurate interpretation. All transcribed interviews, audio recordings, and data from observations and documents were stored in a secure location to which only the researcher has access.

Chapter Summary

A qualitative, single case study design was the most effective approach for this study as it seeks to describe teacher perceptions and experiences fostering the 4 C’s through a school-wide arts integration model. The results from this study offer insight to the educational community of the impact of arts integration on 21st century learning.

The research design utilized multiple, in-depth interviews, on-site observations, and document review for data collection and analysis. The actions and timeline for the

research process is documented in Appendix I. Participants in the study were selected by a predetermined set of criteria to ensure each had experienced the phenomenon for at least 2 years. Data analysis was conducted simultaneously with data collection (Merriam, 2009) and transcribed and coded by the researcher. A pilot study was conducted at another arts-integrated school prior to the larger study to aid the development of instrument protocols. Verification occurred throughout the data collection, analysis, and report writing process through triangulation; member checking; rich, thick description; and peer debriefing. Chapter 4 discusses the findings of the case study.

Chapter 4: Data, Analysis, and Findings

The purpose of this qualitative case study was to examine teacher perceptions of arts integration practices in fostering student acquisition of critical thinking, creativity, communication, and collaboration. This chapter presents findings utilizing document review, individual interviews, informal observations, and a focus-group interview to answer the following research questions.

- RQ1. What strategies/methods are used to implement a school-wide arts integration program at this school?
- RQ2. What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school?
- RQ3. What 21st century support systems align with the school-wide arts integration program at this school?

Chapter 4 is organized into three sections. The first section provides an overview of the participants and the research site as well as how the instruments were used for data analysis. The second section is organized by research questions, and the findings evidenced through the measurement instruments are presented to answer each question. The data were revisited multiple times in a cyclical manner and triangulated to identify recurring trends and emerging themes and are articulated in the final section.

Description of Arts School

Arts School is a kindergarten through eighth grade public charter school located in the mountain region of western North Carolina. The school first opened in 2000 and, although largely funded by tax dollars, is governed by a nonprofit corporation rather than under the jurisdiction of a school system. The school currently serves 400 elementary and middle school students from six surrounding counties. The Executive Director is

charged with leading the school and reports directly to the Board of Directors.

In addition to the regular education teachers, Arts School employs full-time teachers in the areas of visual art, music, dance, theatre art, and technology. Teachers are encouraged to utilize their unique arts talents, but lessons are expected to reflect all art forms. The school offers a complete education through an integrated curriculum centered on visual and performing arts utilizing an experiential learning approach. Students attend dance, drama, visual art, and theatre arts classes at least one time per week. The full-time technology teacher works with teachers on an as-needed basis for special projects. The staff believes in a family-centered, cooperative approach to education that encourages parental involvement and community service in order to nurture responsible citizenship. The vision of Arts School is to be a national benchmark in educational excellence through integration of the arts.

The Arts School campus sits on the side of a highway. The campus is bright, clean, and inviting. The school day begins at 8:15 a.m. and dismisses at 3:10 p.m. Families may pay a fee to have students attend the afterschool program. Before school care is available at no charge. These programs run all year and are open to all students. Upon entry into the school, the lobby consists of displays of awards and recognitions hanging on the walls. Recognitions on the wall include School of Distinction awards for the years 2002-2003, 2003-2004, 2004-2005, and 2009-2010 and the John F. Kennedy Center for the Performing Arts School of Excellence in Arts Education Award for 2013-2014.

Bulletin boards on the adjacent wall include information on ways volunteers can become a part of the learning community. Volunteers log about 5,000 hours annually. The list of volunteer opportunities includes helping in the classroom, chaperoning a field

trip, serving on the School Improvement Team (SIT), assisting at a fundraising or annual event, participating in the Visiting Artists Program, assisting with afterschool care, tutoring a student, becoming a coach, and participating in Adopt-A-Street cleanup. Collecting labels of education, Box Tops, donations to the school thrift store, and carpool requests are a few more ways for interested people to be involved. The adjacent bulletin board offers information on community resources and Arts School.

Arts School promotes four pillars for their school community: respect, effort, leadership, and service. The pillars are values that are taught and nurtured at each grade level, as they are thought to provide structure and support to the learning community. Respect means to regard the feelings, wishes, rights, or traditions of others, self, and the learning environment. Leadership means to empower, model, or be a principle player in his or her own life and the lives of others. Effort involves a determined attempt by an individual or group with a common purpose. Service is the helping or doing for others. When the pillars are applied to personal development and interpersonal relationships, the belief is that members of the community will flourish.

The middle school program combines collaboration, research, team building, and performance to foster skills in problem solving and critical thinking. At the middle school level, students can specialize in world dance, pottery, technical theatre, claymation films, and world agriculture. To meet the diverse learning needs of the students, honors level courses such as algebra 1, geometry, and language arts are provided as extensions to the standard curriculum. National Junior Honor Society is available to students in sixth, seventh, and eighth grades for students meeting the guidelines of scholarship, leadership, service, citizenship, and character. The school also participates in the North Carolina Virtual Public School program to extend course offerings to middle school students. A

primary mission of the school is to foster whole-child growth. A middle school advisory program to foster trust, respect/responsibility, identity, bonding, effort, and service (TRIBES) provides a safe, nurturing environment for students to work with a teacher in a small group. Groups meet three times per week for 30 minutes to develop personal goals, participate in teambuilding exercises, and develop and implement service learning projects. Examples of service learning projects include volunteering at a local soup kitchen, partnering with the elderly, and reading buddies. Arts School partners with local schools to offer select team sports such as flag football, basketball, soccer, and cross country to middle school students.

Arts School joined the A+ Schools Program network in 2012. Arts integration is the primary instructional methodology at Arts School. The arts are viewed as critical to the learning process. This is evidenced the minute one enters the grounds of the school by the Arts School Community Artist of the Month recognition in the main lobby, the Art Gallery on one wing of the school, and the collaboration of student projects lining the hallways and classrooms. Students' creative and artistic talents as well as opportunities for students to showcase what they know are visible throughout the school. Evidence of the learning process displayed on tables and hung in the hallways with the students' own written descriptions highlights the integral role the arts have at this school. Currently, four teachers at Arts School serve as A+ Teaching Fellows. An A+ Teaching Fellow is at the top of their craft as artists and as arts educators. The A+ Teaching Fellows provide support to other A+ Schools through the facilitation of workshops and presentations at conferences providing activities and experiences relating to the arts and arts integration. Students are exposed to visiting artists through performances, art shows, music concerts, residencies, and a variety of arts-related field trips. Field trips are considered a vital and

fundamental part of the student's educational experience at Arts School. Previous visiting artists include nationally acclaimed puppeteers; African drummers; folktale artists; Latin musicians; storytellers; and a variety of weavers, potters, folk artists, and visual artists.

Participants

To broaden the data collected, participant involvement in each instrument varied. The participants in the study included the site administrator, the Enterprise and Development Manager, the Communications and Marketing Coordinator, and a staff of 12 teachers. Teacher participants represented classroom teachers in Grades 1 through 8, as well as theatre art, music, technology, and dance. Students participated in the study during observations in their natural setting which included classrooms, performances, and public areas.

Procedures

Upon IRB approval, the researcher attended a staff meeting with the purpose of introducing the study and giving teachers an opportunity to meet the researcher. Teachers were extended an invitation to participate in the study and were asked to complete a form with their name and contact information if interested. Interested participants were asked to give contact forms to the Site Administrator, who then gave them to the researcher for scheduling purposes. Data collected through interviews, observations, and documents were all aligned and coded to specific research questions in order to triangulate the data and justify consistent themes. Table 6 provides the types of instruments utilized and frequency of data collected by the researcher at Arts School.

Table 6

Data Collection Framework

Data Collection Technique	Description
Interviews	9 individual interviews consisting of 7 teachers, the Enterprise and Development Manager and the Site Administrator
Focus Group	1 focus group interview with 8 participants
Observations	3 AIT meetings, 1 student performance, 4 classrooms, 1 staff meeting, walk-throughs
Document Analysis	Website, SIP, rubrics, Parent Handbook, report cards, lesson plans, newsletters, professional development logs

Note. AIT=Arts Integrated Team; SIP=School Improvement Plan.

Interview data. Individual, face-to-face interviews were conducted with nine participants from Arts School. They included the Site Administrator, the Enterprise and Development Manager, and a staff of six teachers. Each member met the criteria for selection as having taught at least 2 years at Arts School. The participants comprised experienced teachers, beginning teachers, and teaching artists. All teachers, meeting the criterion previously addressed, were asked to participate in an interview scheduled at a time of convenience. The interview questions were designed to obtain in-depth responses to the three research questions. The categories of questions pertained to arts integration practices, the 4 C's, and support systems. Interview questions were sent via e-mail to participants prior to the interviews. Each interview lasted at least 30 minutes, was audio recorded for future transcription accuracy, and a protocol was followed to ensure consistency. All interviews were transcribed by the researcher and coded for themes and subthemes for teacher perspectives of arts integration practices and the relationship to

student acquisition to the 4 C's. Each interview was analyzed by developing initial codes based on participant responses. The data were broken down into discrete parts, closely examined, and compared for similarities and differences. The researcher read through each transcript and coded the narrative being careful to use the same terminology as the participant. A baseline of possible themes was generated that reflected participant responses to the research questions. After the initial coding, axial coding was applied as a second cycle coding to develop a sense of conceptual cohesion among the data. Axial coding is a process in which the researcher rereads the initial transcripts and the identified categories to define the characteristics and connections of each category. Axial coding was conducted to further reduce the data by grouping similarly coded data in new ways by asking questions and making comparisons from the developed initial codes (Saldaña, 2013). Upon completion of transcription, the researcher analyzed the interview data and identified themes based on strength codes. If a theme was mentioned in one to three interviews, it was assigned a weak code. If it was present in four to six interviews, it was given a moderate code. A strong code was assigned if the theme was present in seven or all of the interviews. The researcher continued with the coding until saturation was reached and no new codes developed. These themes were validated by the eight interview participants during the member-checking process.

Focus-group interview data. Focus-group questions were developed after analysis of individual interviews and concurrently with site observations and document review and were aimed at determining the participant teachers' perspectives of the strategies and/or methods used to foster student acquisition of the 4 C's. Following the individual interviews, a focus group consisting of the site administrator and AIT was interviewed to answer questions created by the researcher based on interview responses

and document analysis. The AIT was selected for the focus group because the researcher sought to gather additional information concerning identified themes and gain the perspectives of the arts specialists. Focus groups are a tool used to facilitate the sharing and questioning of ideas in a group, and the interactions allow participants to hear other member's responses to encourage communication and differing points of view. This method provided the researcher with an effective way to delve deeper into the teachers' perceptions of the relationship of arts integration practices and the 4 C's. The focus group was recorded and later transcribed by the researcher.

Observation data. An observation protocol was utilized during the observation portion of the study to aid in answering the guiding question, "What is the impact of a school-wide arts integration program on creativity, critical thinking, collaboration, and communication?" Observations were conducted during the regular school day. The observation tool was designed to document the support systems in place at Arts School. These systems included curriculum and instruction, professional development, assessment practices, standards, and learning environment related to arts integration and the 4 C's. Observation data obtained from walkthroughs, one staff meeting, three (hour-long) AIT meetings, one multi-grade level student performance, and classroom visits were used to support findings from interviews and document reviews. The observations added to the overall analysis of the school's implementation of arts integration and the 4 C's.

Document review. All documents pertaining to the school's mission, curriculum and instruction, arts integration program, and support systems such as professional development and assessment practices were collected and analyzed for common themes relating to the research questions. To analyze the numerous documents and link them to

interview and observation data, the researcher assigned a number (1, 2, 3) representing the three research questions and a code to identify the data type (TI1=Teacher Interview 1, FG=Focus Group, D2=Document 2, and O3=Observation 3). Organization of the data involved separating them into categories based on the three research questions. For example, the categories for RQ1 were based on recurring themes in teacher responses. The categories for RQ2 were the 4 C's: critical thinking, collaboration, communication, and creativity. The categories for RQ3 were the five support systems: standards, assessments, curriculum and instruction, professional development, and learning environment. Data were reviewed in a recursive fashion, reviewing documents as they were collected and revising themes as they emerged. Once this process was saturated and no new themes emerged, a peer reviewer examined the researcher's data with the data analysis process and emerging themes. The letter sent from the external reviewer is found in Appendix J.

To effectively answer the three research questions, each question is addressed individually and triangulation is used to support the findings. Emergent themes developed from the findings for each question are stated and supported by the triangulation of participant interviews, site observations, and document review.

Research Question 1

What strategies/methods are used to implement a school-wide arts integration program at this school? This research question was designed to reveal the strategies and methods used to implement a school-wide arts integration program at Arts School and were answered through interviews, document review, and observations.

The strategies and methods identified by staff as instrumental to their success in the shared vision and practice of arts integration were collaborative planning, leadership

support, focus on the process of learning rather than the product, multiple learning pathways and measures of success, professional development, community partnerships and relationships, and reflection as a tool for growth. The themes identified through data reduction, the strength codes assigned to each code, and the instruments used to verify the data are provided in Table 7.

Table 7

RQ1 Strength Codes

RQ1: What strategies/methods are used to implement a school-wide arts integration program at this school?

Themes	Strength Codes	Observations	Documents
Collaborative Planning	Strong	X	X
Leadership Support	Strong	X	X
Process of Learning	Strong	X	X
Multiple Learning Pathways and Measures of Success	Strong	X	X
Professional Development	Strong		X
Community Partnerships	Moderate		X
Reflection for Growth	Strong		

Interviews provided by nine participants directly addressed the strategies and methods utilized to implement a school-wide arts integration program. A total of nine questions were asked during the individual interviews to gain educator perceptions to answer RQ1. Documents reviewed to answer this question included the Arts School

website, displays on bulletin boards and throughout the hallways, AIT meeting minutes, School Improvement Plan (SIP), teacher created assignments and rubrics, lesson plans, teacher correspondence with parents, and the master schedule. The purpose of the document analysis was to gain insight regarding the school-wide implementation of the arts integration program at Arts School. Document review also provided the researcher with a preliminary study for the focus-group interview and validation of trends or patterns obtained through interviews and observations. Observations conducted pertaining to the implementation of school-wide arts integration strategies and methods included attending three AIT meetings, observing in classrooms, attending a multi-class student performance, and conducting walkthroughs throughout the school campus. The seven identified themes are discussed in detail.

Intentional collaborative planning. The Arts Integrated Team (AIT) at Arts School consists of teachers from each art form including drama, visual art, music, dance, and technology. Through weekly planning meetings as displayed in the AIT 2015-2016 schedule found in Appendix K, team members work to integrate the arts curriculum with the broader curricula at each grade level. The AIT collaborates at designated times during the day with classroom teachers to integrate the arts curriculum with the North Carolina Standard Course of Study, the Common Core, and the Essential Standards to ground students in the necessary skills for high achievement in the arts and technology. All of the teachers interviewed highlighted collaborative planning as a necessary strategy or component to the success of the arts integration program. Teacher 5 (personal communication, October 21, 2015) described the value of collaboration as learning from one another through the sharing of ideas:

With the team, we have these very talented people bringing in ideas of how they

can bring their skill into that project, and I leave the meeting and I've got an integrated unit. So, it's been terrific. It is really the key. The only way that could happen is with intentional planning, collaboration, etc.

Collaboration is given priority at ` by providing time and a schedule conducive to planning as evidenced in the AIT master planning document and the response offered by Teacher 6 (personal communication, October 21, 2015):

The strategies and methods we use, first off, is the dedication of resources—of the human resources to make it possible. It takes a lot of people to make this happen. The willingness of everyone to pitch in to give coverage so that a teacher can go to an AIT meeting, which is a monthly occurrence for them. The willingness and support of the AIT being able to meet on a weekly basis with all of the different grade levels. Our leader, our boss, realized the importance of scheduling. We needed to set aside time every month.

The practice of “intentional” collaborative planning was evident during observation of three AIT planning meetings. A planning document is sent out to the grade-level teams a week prior to the meeting. The purpose of the tool is to gain access to the upcoming standards and instructional areas at each grade level in order to brainstorm ideas to offer support and suggestions during the meetings. The online form is completed in advance of the meeting in order for members to prepare ideas and suggestions for arts integration activities and practices before the meeting to improve the process of collaboration.

During one meeting, the first-grade teachers detailed to the team their progress on a unit they were doing on fairytales. A first-grade teacher (AIT meeting 2, October 13, 2015) stated,

We are rewriting “Goldilocks and the Three Bears” and doing “Jellylocks and the

Three Sea Turtles” because my class got really excited about jellyfish and sea turtles. We are doing an ocean creature, where they are taking their science-based creature and they are looking at the shapes that make up that creature. So, if it is an oval or triangles, like a shark may be an oval and two triangles, and they are building that with their shape with the shapes we have in the classroom. Then, they are going to transfer that creation to paper. They will cut it out and bring it to technology. So, there is the looking at the actual real animal. There are the scientific goals. Then you transfer that into your manipulatives. Then you are transferring that to your paper. And finally, you are transferring that to the technology. So, it is a process. There is a lot more that goes into it than just the actual product.

Because the team had the planning tool in advance, they were able to offer arts-integrated ideas to enrich the fairy tale unit. The visual art teacher offered ideas into turning the shapes of the animals into a work of art by teaching lessons on drawing sea animals and shapes. The technology teacher discussed how he would work with students in the lab to create a scene of their art project and transfer it to a black line master to create a slideshow. The music teacher offered expertise by reviewing with the students the songs the children wrote that also coincided with their unit on phonics and rhyming such as “Chico the Crabs Go Marching In,” and “Down by the Bay.” Finally, the dance teacher said she would do a numbers dance with the factors of eight to create number sentences and movement phrases to go along with the songs and corresponding math unit. This unit will culminate with a performance for parents and the community.

Interview responses, observations of AIT meetings, and documentation of tools for intentional planning generated the theme of intentional collaborative planning as one

method used at Art Space to implement an effective school-wide arts integration program. Teachers indicated collaborative meetings were intentional in that planning in advance of the meetings was deliberate and focused on providing support and offering ideas to enrich and enhance the curriculum.

Leadership support. Teachers perceive the role of leadership to be supportive in their efforts to implement and sustain a school-wide arts integration program by maintaining a shared vision, providing individualized and group professional development opportunities, providing funding and resources, and providing time for teachers to collaborate. Teacher 2 summed up leadership support stating, “We are fortunate enough that it is pretty much our mission. We are very well supported. Arts integration is expected and it is encouraged” (personal communication, October 21, 2015). Another teacher reported, “Our leader, our boss, realized the importance of scheduling. We needed to set aside time every month.” When asked to discuss the methods and strategies used at Arts School to implement a school-wide arts integration program Teacher 6 (personal communication, October 21, 2015) stated,

The willingness and support of the AIT being able to meet on a weekly basis with all of the different grade levels. The willingness of the school, of the administration, of the board, to provide the financial resources to have five full-time specialists. This is a major commitment. What makes it worth it is that [our leader] has made sure that we have the time to collaborate with teachers. Having those scheduling times to make it work this way is a major, major factor. When you get results like this [referring to human body performance conducted by 5th grade students previously in the day], it takes a lot of collaboration. A commitment of these resources is crucial.

Support from administration for additional resources and materials for upcoming projects was witnessed during two AIT meetings. One teacher discussed the idea of taking a Chinese lantern and having the students turn it into a spider, while another teacher discussed the art resources available for adding lights to a jellyfish display and creating an octopus. If resources were not readily available at the school, the administrator checked pricing on the internet during the meeting and discussed the possibility of purchasing them. During an interview, the administrator (personal communication, November 23, 2015) justified,

At the beginning of the year, the teachers fill out a survey. So, number one: What is your top professional need this year? What is your second one? Where do you want to go this year? It might be to the state conference. We spend a good amount of money on professional development. It is my job to find the professional development and put it out there and support them. What they learn is important, but what I think is equally important is a day away from the space and from the kids and connecting with other educators and feeling valued.

Process versus product. Another arts integration strategy or method identified by Arts School staff during interviews and confirmed by observation data is the belief that arts integration is more than just a product. It is a teaching strategy that infuses the arts standards with the core curricula to build connections. Teachers at this school believe arts integration relies heavily on the processes used during instruction to aid in student learning and understanding. Teacher 3 (personal communication, October 21, 2015) stated,

We talk about the process with children all the time. The process is sometimes more important than the actual performance itself. That may come in many

different forms. Working together to create a performance, individual drive, professionalism, are just some of the things we look for. Also, the coming together of the academic subjects and the arts are able to help children master or learn new things in that way.

Teachers discussed the importance of using student self-assessments, peer assessments, and rubrics to generate feedback for growth during the learning process rather than just evaluate the final product. Teachers emphasized providing opportunities for students to revise and improve their work by sharing it with others. Teacher 2 (personal communication, October 21, 2015) noted,

We have also been thinking a lot more about the process. What is it that we are looking for? How are we going to achieve that? What is it that the students are being asked to do? Do they understand why they are being asked to do that? Sort of not making it a big, grand reveal at the end like, “Look what you did!” But, all along knowing they were all going to reach the same goal and know why they were doing it. I have approached that a lot more thoughtfully this year. I am not doing integration for integration’s sake.

The importance of designing success criteria with the students by allowing them to help determine what success looks like during the creative process was also discussed during interviews as aiding in the process of learning. Teacher 5 (personal communication, October 21, 2015) noted,

The number one thing arts integration teaches is the creativity because it gives you feedback. Sometimes that instant feedback on a creative challenge so you go okay I am going to try it this way. If you are in a play, for example, the director can give immediate feedback if it worked and then I can try it a different way. I

realize that it is trial and error that creates that sort of creative process. Failure is not necessarily failure. Getting that failure response is actually more instructive than not getting any feedback.

Analysis of rubrics and documents supported the information obtained from teachers in that students are doing more than just repeating a song or performing a script. Rather, students are engaged in a process and have the freedom to be creative with the writing of a play, the characters, the title, the artistic design of the props, and the music. *Grade Level Highlights*, a section on the school's newsletter outlining specific activities at each grade level, accentuates the processes students are engaged in within the school. The third-grade highlights read,

Third graders build an understanding of personal strengths and challenges through the study personal strengths and challenges through the study of Multiple Intelligences during the Superheroes Project. History comes to life in third grade when we explore leadership characteristics. Inspired by Judy Chicago's *The Dinner Party* installation at the Brooklyn Museum, students research a historic figure, write a monologue, create a costume, form a clay place, and then host an interactive evening for parents. (Grade Level Highlights, p. 3)

Classroom observations confirmed students engaged in the process of learning by constructing understanding through collaboration with others to make judgments and decisions in order to solve problems. A sixth-grade math lesson involved students actively engaged in conversation to construct and demonstrate understanding of the relationship of decimals and fractions. Students were not reciting formulas or memorizing facts. The teacher facilitated learning by allowing teams of students to communicate and problem solve while allowing students to explore and take risks in the

learning process.

Observation of an AIT meeting provided further emphasis on the importance of the process of learning when a member reported, “I would like to get student responses to the *Outsider’s* play we just did. They can write reflections and critiques of their work—a real world synthesis of the play. The actors can benefit from it” (personal communication, AIT meeting 1, October 12, 2015).

Multiple learning pathways and measures of success. Hands-on, experiential learning that engages students in higher-level thinking and emphasizes multiple learning pathways was a significant theme. Student displays and murals evidenced throughout the school showcase student mastery in a variety of ways. Teachers referred to their instructional approaches as being hands-on, engaging, and multi-sensory in order for students to explore and understand concepts. When answering the question, “What does success look like at Arts School,” Teacher 5 (personal communication, October 21, 2015) responded,

With the arts, any type of hands-on. We are trying to give the students as many different opportunities to succeed as possible. If a student can be successful through writing, great. There are plenty of opportunities to write. If they are successful on the stage, and they are a struggling learner in traditional ways, but they can express themselves creatively and show what they know through performance, then they have succeeded. So, there are many different opportunities through the arts, through hands-on projects through traditional tests, things like that. To me, that is what success is. I am thinking about this Greek project we just did. We had a couple of girls who in the classroom, they struggled with focus and things like that. But, when they were dancers, they were able to be

leaders. So, they got a lot of positive reinforcement from the fact that, in that area, they were able to be leaders. Really once they taste that success in whatever area, they want more.

A math and science lesson in the primary grades had students collect leaves from around the building, classify them according to their properties, and then design a placemat with the leaves to celebrate the changing season. The arts are experienced and learned through various media and teachers recognize the differences of each child.

Teacher 3 (personal communication, October 21, 2015) stated,

Arts integration can make a big difference depending on a student's learning style. I think there has been discussion on how are we bring in the different intelligences into our own areas. Yes, I teach dance and my work is really about body intelligence and interpersonal intelligence since we do so much work in dance to collaborate with movement. But, how do also allowing visual learners or students who are more orally strong. How are they also going to have their presence in what we do?

While studying the transfer of energy from warmer objects to cooler ones, sixth-grade science students created songs, skits, illustrations, and diagrams to explain and provide examples of conduction, radiation, and convection and the effects that may result. Teacher 4 (personal communication, October 21, 2015) stressed the importance of allowing students to share knowledge demonstrating success: "They might not be a traditional learner, but their confidence level goes up because, 'Hey, I was able to do that dance.'" The administrator (personal communication, November 23, 2015) mirrored this statement, "Just like with multiple intelligences, we are always trying to grow their [students] weaker areas. The point is we always recognize there are different entry points

for the kids.”

Culture of learning. A strong theme developed in the area of professional development. Teachers stressed learning opportunities are individualized depending on teacher needs and collaborative based on shared, or school, needs. All teachers considered learning opportunities to be an important strategy to maintain knowledge and growth in the arts as well as to strengthen individual areas of need. Students are dismissed once a month for half days which are designated arts professional development days for staff. Teacher 6 (personal communication, October 21, 2015) expressed the common thread throughout the interviews:

[Our leader] encourages us all to get the professional development we need and we do a PDP [Professional Development Plan] every year. So, it is individualized. Our staff professional development is usually based upon our school needs. Such as literacy, test scores, etc. But also, [our administrator] likes us to do one arts professional development per year. We always start our year with some kind of group project. We have done spontaneous operas. We have done a Dante’s inferno—3 acts. At the beginning of this year, we did a happening. Something very artistic or expressionist that we always start our year off with the staff. So professional development is going to be school-wide where we need it and individual as we need it.

Every year the staff gets together before school starts to reignite their creativity with a collaborative art project. Past collaborations have included an opera, a fashion show, theatre works, and collective visual art pieces. Central to the school’s philosophy is a shared community of learners. New staff members are introduced and welcomed into the school community. This annual professional development opportunity allows for

staff to reunite and reconnect with the mission of the school and explore a variety of art forms simultaneously. Teacher 3 (personal communication, October 21, 2015) offered,

[Our leader] makes sure that as a group we participate in PD together, at least twice, and we did two times last year. And those PD times are about building skills and knowledge in terms of language in the art form and processes.

Reflecting as a whole group of how is this going to impact your classroom. Every month we have a half day and that time is devoted to professional development.

The researcher found it common practice that Arts School educators seek out professional development opportunities and use knowledge from these experiences to support the culture of learning at the school. A fifth-grade teacher applied and recently received a grant to attend a workshop in Concord, Massachusetts, titled, “At the Crossroads of a Revolution.” The workshop focused on April 19, 1775, the night Paul Revere made his ride to warn the Minutemen and the Sons of Liberty that the Redcoats had left Boston. When asked how she would use her new learning to inform her teaching in fifth grade, the teacher responded,

Visiting landmarks gives you a new perspective and appreciation for events marked in history, and I hope to be able to share that enthusiasm and deeper knowledge and understanding with my 5th graders. I look forward to relaying what I learned through arts integration and collaboration with my teaching partner, as well as our Arts Integration Team.

Documents revealed teachers not only participate in professional development opportunities to grow in the arts and in areas of need, they also facilitate workshops and present information at arts-related conferences. Three Arts School members and the director of the A+ Schools Program presented at a National Forum in Washington, D.C.,

entitled, “Artists Speak: Listening to Students with Special Needs.” Strategies for meeting the needs of all students as well as the barriers that exist for expanding these strategies and practices nationwide were the focus. The staff is represented by three A+ Teaching Fellows who provide ongoing arts integration support to teachers at the school and schools in the A+ Schools network.

AIT meeting observations confirmed teachers engaging in a culture of learning through the discussion of upcoming professional development needs with the support of the administrator. During AIT meeting 1, the site administrator (personal communication, October 21, 2015) stated,

Something we have done in the past that we haven’t done for a while is to do it like we did the Google thing the other day where people choose the workshop to go to and they have three or four sessions they can pick. The nice thing about that is teachers can go where their weakness is, your art form weakness, um, so, you need to be thinking about it. Any ideas off the tops of your heads? I don’t think you can imagine what the integration potential is if you don’t know the material.

Partnerships and relationships. Parent involvement and establishing ongoing partnerships and relationships with parents of students as well as the surrounding community were evident as a support structure for the school and the school-wide arts integration program throughout the investigation. A volunteer survey is sent out to parents each year to ascertain parent skills and the types of involvement they may be interested in at the school. The administrator (personal communication, November 23, 2015) stated,

We try to get a real good picture of what business our parents own and what arts skills they have. We try to bring that in. Each family is encouraged to volunteer

20 hours a year. Some are well over 20.

Several teachers noted the dedication and willingness of parents to volunteer to drive on field trips due to no busses at the charter school. Field trips involving student exposure to the arts are a critical component of the arts integration program at Arts School. The administrator (personal communication, November 23, 2015) commented,

We go on a lot of field trips. If it is meaningful, and you can get the drivers, then you can go. The assistant principals look at that and see how it is connected with the curriculum. We try to get to arts performances and out into arts museums and things. So, we try to be strategic about that. We have a map that is K-8. The idea is that when you are here K-8, you have gone to some dance performances, and arts museums and plays.

The “Arts Field Trips/Experiences Long-Range Plan” document, or K-8 map, supports the school’s mission of the importance of arts exposure. The document revealed students at each grade level are exposed to various art-related field trips reflecting dance, visual art, theatre, music, museums, and historical/cultural experiences. The plan allows educators to strategically plan field trips so all students will be exposed to various art forms by the time they graduate from Arts School. Parent volunteers, as evidenced through interviews and planning documents, are crucial to the success of the arts integration program. The administrator (personal communication, November 23, 2015) added,

Our parents are here a lot. They are doing a lot. The ultimate parent commitment is to be on our Board. Our Board is always at least 50 percent current parents, and right now it is a little bit heavier on the parent side. You can be really involved as a parent and run the school as a Board member.

Interview participants also recognized the importance of building relationships with local colleges and community organizations to support the arts integration program through visiting artists, programs, and volunteer services. Partnerships with three local colleges afford opportunities for shared learning. Students visit college campuses and enjoy hiking, arts performances, and learning activities through farming and gardening. The administrator (personal communication, November 23, 2015) elaborated,

We develop things together through these partnerships. I think it is a win-win for the schools. We hike; we visit their farm. We visit their arts department. They are a service school so they do a lot of service here. Like they will send 20 people and work in our garden. They also want to expose their students to education. So a lot of times they observe in classes. They might observe for three or four weeks, then present a lesson.

There are also two board members who are professors at one of the area colleges. Arts School currently has five full-time AmeriCorps members currently working at the school. Other partnerships documented include the North Carolina Arts Council, A+ Schools Program, and area businesses that all play a role in the implementation of the arts integration program. The administrator (personal communication, November 23, 2015) expressed,

I think we grow our community through the arts. It is something that unifies your school and gives you focus. The standard course of study is pretty wide-open and saying we are going to teach it through the arts really narrows it down and helps us build a culture with clearer understanding of who we are and what we do.

Reflective practice. A recurring theme from respondents was the practice of reflection to encourage growth and improvement. Teachers expressed one of the greatest

strengths of the arts integration program was the ongoing reflective dialogue among teachers about lessons, units, and student performances—all designed for continued growth and learning. Teacher 7 (personal communication, October 21, 2015) reported that teachers are always reflective: “That is one of the biggest strengths of this school. There is nobody who is content with what they did. They are always looking to make it better.” Teacher 4 (personal communication, October 21, 2015) affirmed, “Reflecting as a whole group of how is this going to impact your classroom” as a strategy for a successful art integration program. The opening of a staff meeting and three AIT meetings revealed staff acknowledging one another for successes. Teachers took time to reflect on and celebrate their peers for individual success, classroom success, and student success.

Teachers also stated the importance of the reflection process, not only with their peers but in the classrooms with their students. Teacher 3 (personal communication, October 21, 2015) stated,

I think that the reflection process after a unit to talk as an AIT team and as an AIT team with the grade level as to what worked and what didn't work. What do we want to different next time? That led us as an arts team to redesign the planning tool that we use. We felt like we were just skipping to logistics. We were missing that key conversation about why are we doing this and what are the goals. What is important in terms of content? Making sure we have that reflection with the students too. With students it can be as simple as a plus, delta symbol like I just had with 6th grade. Or, it can be about a rubric. The self-assessment reflects how I relate to students.

The administrator (personal communication, November 23, 2015) reaffirmed the

importance of reflection: “After every performance when we meet with that grade level, we will process that learning and how much we have grown from it.”

Research Question 2

What strategies/methods are used to foster student acquisition of the 4 C’s through arts integration at this school? This question was answered through focus-group and individual interview responses and validated through informal observations and document review. To identify a strong theme or common strategy identified from participant statements, the researcher first created a table outlining the strategies identified by the respondents for each of the 4 C’s and identified a descriptive theme for each of the 4 C’s. The themes identified as strategies to facilitate development in the 4 C’s through the practice of arts integration included student engagement in group projects, student analysis of artistic work, student creative choice, and student expression knowledge through multiple art forms. Appendix L offers an example of the data deduction process. When interviewing teachers individually and during the focus-group interview, the researcher separated the 4 C’s. For example, four separate questions were asked of participants relating to the strategies and methods they use to foster student acquisition of collaboration, creativity, communication, and critical thinking. Each respondent indicated the difficulty, however, of actually answering the questions separately because each felt the 4 C’s are interrelated. A common thread in the interviews was expressed by Teacher 8 (personal communication, October 12, 2015):

It is difficult to separate them [4 C’s]. Arts integration means children are given opportunities to see the connections among subjects and across ideas to make them better prepared for the 21st century. This includes all of the 4 C’s. When children are collaborating about an art piece, they are communicating. They

might create the piece collaboratively and then use critical thinking to self-evaluate and make decisions to improve it. What we are doing involves all of the 4 C's working together.

This statement, reflective of the interviews, is aligned to the school's education philosophy of which one paragraph reads,

We believe art is more than just a tool for education. In all its forms, art inspires individuals to think critically about their own culture and environment. It encourages the thoughtful expression of an individual's principles and ideas. Furthermore, the arts provide a unique lens for understanding past and present cultures. It is the creative impulse that uniquely responds to the difficult and sometimes capricious challenges presented by an ever-changing world. Finally, art is the ultimate evaluative force, for it is art's critical capacity that allows us to define, refute, and redefine such lofty ideas as "truth," "morality," and "beauty."

After the initial theme identification, and on account of the participant responses of the difficulty separating the 4 C's, the researcher created a frequency table to record the holistic themes common throughout the 4 C's. Table 8 reports the initial themes identified from each of the 4 C's and the frequency of each theme in relation to one another.

Table 8

Arts Integration Practices and 4 C's Theme Distribution

Themes	4 C's Frequency Distribution							
	Creativity		Critical Thinking		Collaboration		Communication	
Group Projects	*5	**6	*2	**2	*7	**19	*7	**7
Student Analysis	*4	**3	*8	**16	*2	**3	*2	**3
Student Choice	*3	**8	*3	**6	*1	**2	*1	**1
Student Expression	*2	**3	*1	**1	*3	**3	*5	**8

Note. *=Number of interviews theme was used; **=Frequency of theme cited during interviews.

Using the strength codes identified previously, if a theme was mentioned in one to three interviews, it was assigned a weak code. If it was present in four to six interviews, it was given a moderate code. A strong code was assigned if the theme was present in seven or all of the interviews. Table 8 portrays a strong code for each of the four identified themes. Group projects, student analysis, student choice, and student expression were mentioned in interviews related to each of the 4 C's, and each theme is described through data triangulation to support the findings.

Group projects. Group work in the form of projects and performances was indicated by participants as a strategy used to facilitate the 4 C's, particularly collaboration and communication (personal communication, October 21, 2015). Teacher 2 responded,

I think depending on the project, it calls for either small group collaboration or whole group collaboration. I feel like a lot of what I do in here uses small groups.

Rarely, very rarely, are students working on their own. If students choose to do that, I will let them. It is usually a group project that generates conversation. I think that fosters collaboration. How are they going to work together to create this piece.

Teachers indicated the importance of small- and large-group experiences in creating art pieces such as murals, songs, dances, drama, and media. Through collaboration, students are sharing ideas, listening to one another, and working together to reach a goal or solve a problem. Teacher 6 (personal communication, October 21, 2015) noted, “The artist is communicating something so they have to collaboratively work together on various projects. Everything in technology in here is the 4 C’s. They have to work together, communicate, creatively think.” Teacher 7 (personal communication, October 21, 2015) discussed the use of technology projects to support the 4 C’s: “When you go into our technology, there are groups working together. Sometimes there are break downs in communication in the groups, but this is how growth and learning takes place. I think that is a huge piece here.”

The administrator stressed not only the collaborative nature of students working with each other but the ongoing dialogue of staff collaborating on projects and performances with students. The administrator (personal communication, November 23, 2015) noted,

It is kind of a spirit of collaboration school-wide. So, even if it is not in arts class, students are working with partners. I think really what is kind of unique is the collaboration between staff and with each other and the development of projects. That collaboration doesn’t just stop with teachers. We really bring our support staff into those processes. You will walk by first grade and the teaching assistants

playing guitar and singing. We are tapping into the talents of our support staff and really collaborating with them as well.

Teacher 7 (personal communication, October 21, 2015) also expressed the collaborative nature of students collaborating with diverse groups:

You see a lot of teacher-student collaboration. That is nice because students aren't just going to collaborate with people their age group as they move on. They are going to have to collaborate with authority or people of a different age group or ability too.

Documents evidenced from teacher rubrics and the student report card emphasized the relevance placed on building collaboration and communication skills among students during group projects. Teacher 1 (personal communication, October 21, 2015) vocalized,

I speak really frankly, specifically to my 7th and 8th graders, that if you are not able to get along with people it is gonna be very difficult for you. Ya know, if you are not able to take accountability for your own work and the quality of it that's going to be a struggle later on or that is going to be something that drives you to success. They will get a group daily grade when we get into the script writing and puppet making process.

Teacher rubrics varied and were indicative of the processes and projects students were engaged in. The administrator (personal communication, November 23, 2015) noted,

You really have to build communication skills during that collaborative process. But, just putting students on stage really helps with the communication skills. Non-verbal communication like communicating through music, our bodies,

dance, and visual art are really happening all the time.

Teachers stressed the importance of using rubrics to allow students to improve and grow in their ability to communicate and collaborate during group work. Commonalities among group project rubrics included having a cooperative attitude, offering support, individual contributions, leadership ability, nonverbal communication, effort, and being respectful. During the focus group discussion, all AIT teachers indicated the use of student self-evaluation tools to evaluate their own learning individually and in groups and to apply that to future learning in order to improve. Informal classroom observations witnessed by the researcher found students engaged in small groups discussing tasks or problems and offering ideas and solutions. Students in all four observed classrooms were working collaboratively in small groups to create original works or to solve real-world problems through discussion and communication.

Student analysis. Student self- and peer analysis was stressed by participants as a strategy used to facilitate the 4 C's, particularly critical thinking, through the practice of arts integration. Teacher 5 (personal communication, October 21, 2015) noted, "Critical thinking comes through in the analysis of works of art. Students analyze performances." During the focus group, teachers indicated having students critique their own products and performances as well as their peers. One teacher (focus group, November 23, 2015) reported the value of this strategy: "There is that piece of looking at the rubric after you create something. If I [student] don't meet the criteria or restrictions for the rubric, I [student] need to recreate and adjust so I create again." Another teacher (focus group, November 23, 2015) agreed by stating, "Having the students go back after the creative process and evaluating them with the rubric by stating, 'Now what would you give yourself on this and why and what would you do to improve your grade?' I love

critiques.” Through self-evaluation, rubrics, and critiques students are able to analyze their work in order to improve it. All teachers interviewed indicated this as an important skill for critical thinking. Teacher 7 (personal communication, October 21, 2015) reported,

In theatre they critique each other in plays that they see. Even for other grade levels. If they watch a play often that teacher will process it with the class. That is for the critical analysis piece and the content. Like if you took your third grade class to the 5th grade body systems play you are going to talk about the play and analyze it because you are teaching body systems too.

The administrator (personal communication, November 23, 2015) stated she sees evidence of critical thinking in classrooms, positing,

A lot of our teachers have critical thinking stations or seminars, like Padeia seminars, are used. In second grade, it is a normal weekly rotation during their lit block. They are always analyzing a piece of art. In music they are doing it as well, in dance too. They are looking at other pieces and analyzing. Critical thinking comes in too when you are creating. To be able to complete a creative task you have to think critically about what the teacher is asking you to do, with the information you are working with and things like that.

Observations, rubrics, and lesson plans revealed students are creating art and solving problems through comparing, critiquing, reflecting, and exploring multiple viewpoints. The fourth-grade students in their study of Earth Science created a mind map to demonstrate their understanding of the content and show the relationships between different scientific areas. A mind map is a graphical representation of the connection of ideas and concepts helping the reader better analyze, comprehend, and synthesize

information. This activity allows students to analyze how parts interact with the whole.

Teacher 6 (personal communication, October 21, 2015) stated,

Last week the 6th grade drama teacher had some of the 3rd graders who can't see it, the next time she met with them they she had them analyze the performance. I try in my Social Studies to do some role play. We have a medieval fair coming up. There will be some performance aspects of it. There will be some song and dance and theatre. But, they are also being a person in that society. So, people are going to be asking them questions about their lives and they have to use that critical thinking to bring their research and history notes to life through their character. I know the 7th grade teacher recently did a trial. For years in 6th grade when we used to teach the 20th century we did a war crimes trial based on the Holocaust. Everybody had a part. They had to do their research and the jury heard the evidence and they had to have a consensus and all sorts of things going on. There are so many opportunities.

Evidence from interviews and documents supports teacher use of Bloom's Revised Taxonomy which focuses learning on knowledge and cognitive processes promoting higher order thinking such as evaluating and creativity. Teachers discussed utilizing Bloom's processes during their lessons. Teacher 3 (personal communication, October 21, 2015) summarized,

I think if you think about the process within arts integration, there has to be some kind of synthesis to the learning experience where those are brought together. How do you use parts of it together in a new way for the student. And metacognitively too. How are they connecting it to the world around them. That's a big creative application. I always use Bloom's for a planning tool for

myself.

Student choice. A strong theme expressed by teachers was the importance of allowing students choice within the arts as a foundation for acquisition of the 4 C's, specifically in the areas of creativity and critical thinking. Teacher 7 (personal communication, October 21, 2015) responded,

Valuing the process by measuring the creativity is as a teacher you are able to accept a variety of different ways of coming to an answer. Students have choice to be creative. So there is something that is valued about the creative way of getting to the product. This is what you are trying to express and these are the restrictions that you have, but really getting from here to there is really the most interesting part. And they are free to do that. We don't tell them exactly how.

It became evident from participants that the practice of offering students a choice on how to show or share their learning or how to solve a problem is valuable in developing students who can think creatively and critically. Teacher 6 (personal communication, October 21, 2015) reflected, "I think the very process of creating art is very critical in the choice you are going to make to move your art form and your message forward." Teachers believe artists must make choices in order to create a piece of art. By allowing students the freedom during the creative process, students are provided an opportunity to think critically about the creative choices they are making. Teacher 4 (personal communication, October 21, 2015) elaborated,

Kids are looking at other people's work and saying, "Well, I would have done it this way." And that's their creative process. Then, if the child has an opportunity to change the way of doing something, then why are they choosing not to or to, and there is creativity in that process as well.

Student art work hanging throughout the school and presented on tables for display depicts variation among student pieces indicating they were not modeled after a predetermined pattern. Teacher-created rubrics also support the teacher's belief that students are free to design, solve, or create something without being told how.

Guidelines are given, but it is the freedom of choice that allows students to think critically and creatively. Teacher 6 (personal communication, October 21, 2015) stated,

In technology when we are doing any of the media video, the critical thinking is in the very choices. What color am I going to use? What is the backdrop? What is my storyline? What do I do first? What do I do last? The very choices they are having to critically think. Does this enable my story or detract from my story.

Student expression. Arts integration at Arts School provides opportunities for students to express themselves through various art mediums to demonstrate and construct understanding. Teachers indicated that student acquisition of the 4 C's, particularly verbal and nonverbal communication, is fostered through the art form itself. One teacher (focus group, November 23, 2015) noted,

Each one of the art forms, in and of itself, is a form or method of communicating an idea or expressing an idea. I think that is the big overarching piece of the arts. Visual art is about communicating, telling the story that you want that painting to tell.

The dance teacher (focus group, November 23, 2015) agreed, stating, "In dance, communication is in terms of expressing yourself through movement or allowing others to understand your movement choices through dance."

Student expression or sharing of knowledge may take on various forms based on student preference of learning style. Teacher 4 (personal communication, October 21,

2015) acknowledged, “They might not be a traditional learner, but their confidence level goes up because, ‘Hey, I was able to do that dance.’” In another class, students may express themselves through oral and written communication such as composing songs, writing and reading poetry, script writing and acting, play writing and performing monologues, and creating and conducting performances. In technology, students express themselves through videos and short films. In addition to engaging in daily arts integration, the students at each grade level participate annually in a STEAM festival. The festival is a way for students to creatively solve problems and express their learning. The administrator (personal communication, November 23, 2015) confirmed,

You can’t work creatively and collaboratively without communicating with each other. You really have to build communication skills during that collaborative process. But, just putting students on stage really helps with the communication skills. Then, non-verbal communication like communicating through music, our bodies, dance, visual are really happening all the time.

Research Question 3

What 21st century support systems align with the school-wide arts integration program at this school? According to P21, there are five support systems necessary to ensure student mastery of 21st century skills. They include 21st century standards, assessments, curriculum and instruction, professional development, and learning environments. These support systems must be aligned to produce a support system that promotes 21st century outcomes needed for today’s students (P21, 2015). The purpose of RQ3 was to gain the participant perceptions as to the relationship of P21’s support systems with the arts integration program at Arts School. Tables 9 through 13 provide an overview of the relationship of the 21st century support systems as described by P21 and

the arts integration support systems identified in the study through interviews, document review, and observations.

21st century standards. Standards address what students should be learning. Twenty-first century standards emphasize active engagement, real-world problems, in-depth learning, and multiple methods of assessment as necessary to ensure student mastery of the standards (P21, 2015). Table 9 outlines the alignment of 21st century standards with arts integration support standards and identifies the instrument tools used to collect data.

Table 9

21st Century Support System of Standards

Support System	21st Century Support Systems Description	Arts Integration Support Systems Identified by I, DR, O
Standards	Active engagement	Active engagement (I, DR, O)
	Real-world problems	Service learning projects; problems with real-world connections (I, DR, O)
	In-depth learning increases as students advance grade levels	Co-planning, team teaching, and arts classes provide increased learning opportunities by building on concepts taught in previous grade levels (I, O)
	Multiple methods of assessment	Self-, peer, and group assessments 21st century skills assessed on report cards, projects, performances, and observations (I, DR)

Note. I=Interview, DR=Document Review, O=Observation.

Data revealed practices to support students in the area of standards align with the 21st century best practices relating to standards identified by P21. Goal 3 of the SIP

stated, “[Arts School] Charter School will continuously improve 21st century readiness for every student by approaching teaching and learning in a holistic manner and combining a discrete focus on 21st century student outcomes with innovative support systems.” This goal is aligned with the North Carolina state goal which indicates public schools will produce globally competitive students, be led by 21st century professionals, and be governed and supported by 21st century systems. Strategy 5 stated, “Continue to include critical thinking and problem-solving, communication, collaboration, creativity, and innovation in day to day instruction and opportunities for all students.”

During interviews, all teachers confirmed they use the North Carolina state standards. Teachers also stated they are in the process of aligning the state standards with the National Standards for Arts Education. The National Standards outline basic arts learning outcomes pertinent to a comprehensive education for students in kindergarten through Grade 12. One teacher (personal communication, October 21, 2015) stated, “The Arts Integration Team is working with the National Standards as well. We just started because they have just been revised.” Another teacher (personal communication, October 21, 2015) expressed,

We have had a little bit of dialogue as an arts team about how we are going to bring those [National Standards] in. Part of this for me is to develop new lessons to find those connections between the lessons and the National Standards.

Students at Arts School actively engage in learning the standards pertinent to their grade level. A standard in Grade 8 sciences, for example, is the study of atoms and their makeup. Students created artistic interpretations of atoms of their choice. In this activity, students were responsible for identifying the number of protons, neutrons, and electrons. For another science standard, students worked collaboratively to create

bumper stickers using the atomic numbers, periods, groups and symbols, and atomic masses of the elements on the periodic table. This activity provided a hands-on, engaging way to make students familiar with the organization of the periodic table. The students also had to select and research five elements and find common uses and characteristics according to the state science standards.

In sixth-grade math, to meet the Common Core State Standards for understanding ratio concepts and solving problems with decimals, fractions, and percentages, students created designs on 10 by 10 grids using mathematical conversions. Students completed calculations for their proportions. Student artwork was inspired by the work of Ellsworth Kelly and Victor Vassarley. As an extension, students were challenged to complete calculations based on a 64 square design.

Fourth graders explore the Social Studies curriculum by immersing students in the history and culture of North Carolina through role play, reenactments, and the arts. Math is brought to life through students' active engagement in storytelling using real-world applications. Real-world problems, through arts integration, provide students with an avenue to experience learning to better prepare them for a future outside of Arts School. Teachers discussed the importance of preparing students with the skills necessary to succeed in the 21st century. During the focus group, one teacher (personal communication, November 23, 2015) explained, "We are preparing students for high school and college. We are preparing our students to have a life outside of here about skills we need beyond education." Arts School students participated in a Day of Caring in service to the community by participating in projects inspired by the United Way. Grade levels made blankets for children, created holiday cards for the elderly, helped in neighborhood beautification, and collected monetary donations for Heifer International.

Projects were tied into curricular units and provided a real-world connection.

Three teams from Arts School competed in a regional tournament showcasing projects designed to solve problems. One team designed, built, and drove a vehicle through a test course using propulsion systems and a talking Global Positioning System (GPS). At the culmination of the eighth-grade year, students participate in service learning projects to finance a week-long trip to the Outer Banks which highlights the connection between curricular studies and real-world experiences.

Teachers expressed the arts integration support system of collaborative planning aids in the planning of activities to support in-depth learning as students advance grade levels. The arts teachers work with each grade-level teacher to plan two-way arts integration activities and experiences that deepen as students progress through grades. For instance, students in Grade 5 learned the science standards of the anatomy of the human body by collaborating in small groups to create songs and dances to reinforce their learning. In collaborative teams, students created life-size drawings of the human body systems that included vocabulary from the science curriculum and created dances to illustrate how each system works. Collaboration allowed teams to share resources and communicate ideas in order to present a multimedia show on the human body systems to the school and surrounding community.

According to P21, standards should be assessed using multiple methods. Teachers acknowledged the use of multiple measures to assess student understanding of the standards. Rubrics are used for assessment of North Carolina Common Core State Standards, and 21st century skills. One teacher (personal communication, October 21, 2015) emphasized,

I assess them in a variety of ways. We do self-assessments. We do peer

assessments. We will do group assessments. Sometimes it is written and sometimes it is oral. I am encouraging them to give constant feedback and listen to each other. Because that's where the growth is gonna happen.

The report cards have been revised and not only include student learning standards aligned to the North Carolina state standards but include 21st century skills. Appendix M offers an example of the 21st century skills students are evaluated on at Arts School. These standards-based reports list the most important skills students should be learning in each subject at a particular grade level. The purpose is to give parents and student's a greater understanding of what the student knows and what areas are in need of improvement. Students are given number grades in the academic subjects and letter grades on 21st century skills.

Assessment of 21st century skills. Data revealed teachers at Arts School offer authentic measures of student progress through enriched assessments that are embedded in the process and product of learning. They use projects as well as other products and performances to determine student needs and successes. Table 10 conveys the alignment of arts integration assessment practices with 21st century assessment practices and offers the instruments utilized to triangulate the data.

Table 10

21st Century Support System of Assessment

Support System	21st Century Support Systems Description	Arts Integration Support Systems Identified by I, DR, O
Assessment	Balance of formative and summative assessments	Enriched assessments (I, O)
	Portfolios	Informances, Performances, Projects (I, DR, O)
	Useful, embedded feedback	Embedded feedback and reflection (I)

Note. I=Interview, DR=Document Review, O=Observation.

Review of teacher rubrics found standards evaluated through embedded assessments focusing on both the process of learning and the product, or outcome, of the learning. Formative assessments reflected rubrics, quizzes, assignments, written work, projects, observations, and self- and peer assessments. Summative assessments were in the form of performances, written tests, book projects, posters, brochures, commercials, multimedia presentations, and various other projects. Informances, or student demonstrations to faculty and families of what they have learned, are also used by staff as summative assessments. The assessments are enriched because they involve the multiple intelligences allowing students to demonstrate mastery of concepts in alternate ways focusing on their strengths. The goal is to provide teachers with the information they need to individualize instruction and to provide meaningful feedback to students. Rubrics used for assessments are sometimes created collaboratively with students. One teacher (personal communication, October 21, 2015) offered,

You have to work with the students and create a rubric. So, I would build a lot of

my rubrics with the students at the beginning of the project because that way they have decided what the success is and I of course would guide that thing. I think that is a very powerful way to do that. Rubrics are very important.

A theme generated in RQ1 related to the use of purposeful and reflective feedback with students to aid in understanding and growth. Assessment practices involve feedback to students, allowing them to be invested in the process of the evaluation. A teacher (personal communication, October 12, 2015) summed up the feedback process in the arts as follows:

The number one thing arts integration teaches is the creativity for me because it gives you feedback, sometimes that instant feedback on a creative challenge so you go o'kay I am going to try it this way. If you are in a play, for example, the director can give me immediate feedback if it worked and then I can try it a different way. I realize that it is trial and error that creates that sort of creative process. Failure is not necessarily failure. Getting that failure response is actually more instructive than not getting any feedback. So, as you start to really work within the arts you start to look for feedback and look for, "Hey, where is this not working for you?"

Classroom and whole-school newsletters provide information to parents about the assessment tools utilized at Arts School as well as proficiency levels their children are expected to meet and strategies for working with their children at home. The goal is to provide parents with a clearer picture of what their child knows and is able to do.

21st century curriculum and instruction. Arts School teachers expressed the curriculum is integrated two ways. Multiple intelligences and experiential learning approaches are utilized to support student learning styles, and project-based learning is a

method allowing students to work together to solve problems. Technology is utilized regularly for research, to create and present information and products, and as a communication and collaboration tool. Table 11 outlines the alignment of arts integration curriculum and instruction practices with 21st century curriculum and instruction practices as well as the instruments used to support these claims.

Table 11

21st Century Support System of Curriculum and Instruction

Support System	21st Century Support Systems Description	Arts Integration Support Systems Identified by I, DR, O
Curriculum and Instruction	Interdisciplinary	Interdisciplinary (I, DR, O)
	Innovative learning methods	Multiple intelligences and experiential learning approaches (I, DR, O)
	Integrate technology, inquiry, problem-based approaches, and higher order thinking skills	Project-based; two-way integration with the five arts (music, visual art, dance, theatre, technology) (I, DR, O)

Note. I=Interview, DR=Document Review, O=Observation.

The educational philosophy of Arts School states, “Because of its wide-ranging applications, art inherently belongs in any serious exploration of the North Carolina Standard Course of Study. We explore the curriculum in a variety of hands-on, practical (and often artistic) applications.” The philosophy goes on to express a wide range of educational methodologies including Montessori, Whole-child, Traditional, and Waldorf, indicating the exposure to a multitude of approaches ensures student success. When asked about the arts integration school-wide philosophy, Teacher 2 (personal communication, October 21, 2015) responded,

My attitude was I have absolute freedom. I am still teaching the same curriculum but they are asking me to do it in a fun, creative way that really resonates with the students especially whether you are left-brained or right-brained. How do you learn? How do you communicate? There is not just one way to teach. So, I found arts integration to be a blessing.

Multiple learning pathways and measures of success, identified as a method or strategy for arts integration practices identified in RQ1, support teaching practices utilizing multiple intelligences and experiential learning. Teachers were unanimous in stating the importance of utilizing multiple strategies and methods to allow for student success. “With the arts, any type of hands-on. We are trying to give the students as many different opportunities to succeed as possible,” stated one teacher. Teacher 6 (personal communication, October 21, 2015) commented,

If they [students] are successful on the stage, and they are a struggling learner in traditional ways, but they can express themselves creatively and show what they know through performance, then they have succeeded. So, there are many different opportunities through the arts, through hands-on projects, through traditional tests, things like that.

All teachers have students complete projects designed to use information and skills that integrate other subject matters as well as the arts. Some projects are done collaboratively with other classes or grade levels. Second-grade students, while reading the book *Charlotte’s Web*, learned the social studies concept of communities; the science concepts of life cycles and seasons; and visual art techniques through the creation of character sculptures by using expression, color, and shape.

In one unit, fifth graders developed an understanding of European expansion into

the Americas through multiple intelligences. After learning about the culture of the Native Americans and European Explorers, students assume roles as members of the cultures and present their interpretations of a cultural exchange through song, dance, and original monologues.

Arts School held its first Science, Technology, Engineering, Arts, and Mathematics (STEAM) fair. Students in all grade levels conducted scientific research and experiments, and then created artwork to represent the concepts. Results of the inquiries were presented to staff and other students above and below their grade level to enrich learning. Projects ranged from plate tectonics to fossils, weather, physical and chemical changes, and topography and elevations.

Technology is an area of the curriculum described by teachers as the “fifth” art because it enhances arts integration. Technology is described by teachers as an essential component of the arts-integrated curriculum. Students are encouraged to explore technological techniques to demonstrate their understanding of the core curricula. In addition to traditional tools such as word processing and multimedia programs, students express themselves through design and digital video production, using digital photography, and creating virtual 3D worlds and stop-action movies. Students have access to Mac and PC platforms, a wireless network, an Exploration Lab, and mobile computer labs affording all students access to the internet. Smart Boards, tablets, and laptops are utilized to access and present information. Arts School’s website regarding the use of technology states,

Due to the tremendous rate of technological change in the world, understanding how to use technological tools in the ‘real-world’ situations is paramount in creating 21st Century Learners. The amount of information available now

doubles every two years, and so the challenge is not to teach in isolation, but to integrate the available tools so that students learn creative thinking, problem solving and adaptability to various situations while learning the content and concepts within the academics.

A project-based approach to learning is emphasized at the school. One teacher stated,

The nature of project based learning is to set up a project that has a real impact or a real solution. For example, our marketing class is making commercials that are going to be consumed by our community about our thrift store or about our 4 C's. Those are real messages that we want to get out. So they have a real problem.

The technology teacher (personal communication, October 21, 2015) stated,

Fifth grade is coming in next week and there is this old simulation called "geography search" in which they are on a sailing ship which is wind-powered. They have to watch the direction of the wind. See where the sun is. It is simplistic. But, it is so powerful. Teaching them how to be observant. Again the 4 C's: they have to work together, communicate, creatively think. It ties into forces and motion and geography. In fifth grade it is all about the New World. It's is those kind of little integrations that just make a huge impact with the kids.

During a science unit, fourth-grade students worked in groups to apply their knowledge of rocks and minerals to create claymation films about the formation of a rock. Each team created a storyboard and characters out of clay. The integration of technology afforded the students an opportunity to manipulate their clay rock while videotaping to demonstrate a scientific process in science of how rocks form.

21st century professional development. According to P21, schools should

support teachers in becoming 21st century learners by seizing professional development opportunities for integrating 21st century skills, tools, and teaching strategies into classroom practice (P21, 2015). In response to RQ1 claiming the methods utilized at Arts School relating to arts integration practices, a “culture of learning” was identified by teachers as a recurring theme.

Arts School Improvement Strategy 11, “Continuing to provide professional development to improve teachers’ capacity to ensure student mastery of 21st century skills including specific processes for creative thinking that is focused on improving 21st century readiness for every student by approaching teaching and learning in a holistic manner.”

Table 12 highlights the alignment of arts integration professional development practices with 21st century professional development practices as well as the instruments used to support these claims.

Table 12

21st Century Support System of Professional Development

Support System	21st Century Support Systems Description	Arts Integration Support Systems Identified by I, DR, O
Professional Development	Integrate 21st century skills and teaching strategies	Integration of the arts, technology and 21st century skills (I, DR, O)
	Encourages knowledge sharing	Sharing of best practices during collaborative planning meetings, A+ conferences, and workshops (I, DR, O)
	Balance of direct instruction with project-oriented instruction	Two-way arts integration and project-based learning (I, DR, O)
	Enable PLCs to address learning styles	Arts Integrated Team meetings (I, O, DR)
	Help teachers develop various strategies, such as formative assessments	Rubrics, reflections (I, DR)
	Reach diverse learners through differentiation	Multiple intelligences, experiential learning (I, DR, O)

Note. I=Interview, DR=Document Review, O=Observation.

Teachers take an active role in planning and participating in professional development to meet their individual needs as well as the school-wide goals. Learning communities, in the form of AIT meetings, provide regular, ongoing professional learning to improve teacher practices. Interview responses indicated individual and collaborative professional development opportunities are a significant factor in a school-wide arts integration program. Documents revealed half days are set aside monthly for staff to engage in learning opportunities geared toward arts knowledge and vocabulary,

team building, and personalized instruction based on need. As part of the North Carolina A+ Schools Program, Arts School participates in professional development in the form of summer retreats; visiting artists coming to the school to share best practices with teachers while working with students; and arts-related field trips and conferences to increase learning in various art forms to integrate into the Common Core State Standards, NC Essential Standards, and North Carolina Standard Course of Study. The administrator (personal communication, November 23, 2015) stated,

I try to filter out offerings to the teachers of what they said their needs are. I will also send people to things I think they need help with. Then the school-wide PD happens on our half-days. The topics come from the surveys and from the admin team saying what do we need? They come from available opportunities. Usually there is one or two a year that focus on a particular art. A PD we did last year here was with Dance Exchange which is out of DC. Some PD school-wide are just some things we need. Sometimes our teachers will do trainings here with our staff. Sometimes we have visiting artists that will do workshops with us.

Sometime staff has choices of offerings to go to. Then, people pick. I think the PD is really well supported.

A review of documents revealed a broad list of professional development opportunities for staff. The administrator keeps a binder of professional development workshops each teacher has attended in order to make sure staff is versed in a variety of learning opportunities.

21st century learning environments. To foster 21st century skills, learning environments, according to P21, should include an alignment of the following practices: teaching communities to support the sharing of best practices; equitable access for

students in the use of learning tools and resources; human support in leadership, scheduling, and daily operations; community involvement; and physical space to support learning. Table 13 outlines the alignment of arts integration learning environments with 21st century learning environments as well as the data instruments used to support the alignment.

Table 13

21st Century Support System of Learning Environments

Support System	21st Century Support Systems Description	Arts Integration Support Systems Identified by I, DR, O
Learning Environment	Learning community practices include educator collaboration, sharing of best practices and integration of 21st century skills	Weekly Arts Integrated Team (AIT) meetings Monthly AIT meetings with each grade level Team teaching (I, DR)
	Students have equitable access to learning tools, technologies and resources	Technology integration All students have access to internet and learning tools (I, DR, O)
	Human support in leadership, scheduling and daily operations	Shared vision of arts integration. Leadership supports school vision in daily operations, scheduling, curriculum and instruction and professional development (I, DR, O)
	Community and international involvement	Parent and community partnerships and relationships (I, DR)
	Physical space, such as buildings and classrooms, should support interaction and learning	Outdoor space, technology lab (DR, O)

Note. I=Interview, DR=Document Review, O=Observation.

The learning environment for a school-wide arts integration program at Arts

School supports the use of collaborative learning communities during weekly AIT meetings. These structured, intentional meetings provide a network for teachers to share best practices and support the teaching and learning of arts integration and 21st century skills. One teacher emphasized the importance of the AIT learning community:

“Working on a team is the major support system. Being able to collaborate, share ideas, just assist each other with making things happen.” Another teacher (personal communication, October 21, 2015) reported,

We need each other in order to do our work. I think it is nice that collaboration sometimes it is just about helping a teacher with an idea, or about you coming into the classroom. Sometimes it is about integration in our art spaces. We offer the teachers ideas on how they can bring art ideas into the classroom. We try to think about how we can embellish what the regular teachers are doing in the arts classrooms. The collaboration here allows for everyone to be in a different place with integration. I mean it is really nice when it is deep and rich, but sometimes for where a teacher is or what the goal is, it may be a surface level dip.

Time to plan together and a schedule conducive to teacher collaboration were discussed by participants as necessary to sustain an effective school-wide arts integration program. Leadership support, an arts integration method identified in RQ1, contributes to the learning environment by scheduling common planning times for team teaching and collaborative meetings and supporting training for continued professional learning. Teachers have half days each month that are set aside for professional development. Teachers and leadership made a concerted effort to schedule learning opportunities such as visiting artists, performances, and field trips that center on arts integration and arts exposure.

Teachers also team together to plan and teach. The administrator (personal communication, November 23, 2015) explained the following about team teaching:

There isn't one definition of it. It looks different in different classes. Sometimes the classroom teacher with the arts teacher. It kind of has to be that way with algebra and music because they don't know exactly what the other is teaching. So classroom teacher with arts teacher is one way. I would say another way is teaching assistants and classroom teachers. Sometimes teaching assistants may be helping with a special project. Also the two people on a grade level team work together to team teach.

One teacher noted, "We have parents on some different committees. They drive for field trips. They come into the classroom." Another stated, "Parents are working in classes and helping with tutoring groups and special projects. They come to performances and things like that."

Researcher observation of the learning environment found physical spaces accessible and flexible, allowing students opportunities to work collaboratively to communicate and share ideas. Students engaged in dialogue with their peers while sitting on the floor in circles, sitting on chairs in a circle, and sitting in small groups. Students have equitable access to laptop computers via a rolling cart and the Exploration (technology tools) Lab. There is sufficient technical infrastructure to support several classes engaged in digital learning simultaneously. However, students have opportunities to bring their own technology devices for learning assignments upon teacher approval. Teachers have access to current technology and are provided with professional development if a new learning tool is introduced. Teachers work together to plan extended or flexible periods of time for student access to digital equipment while

working on lengthy projects. Teacher 7 explained, “I think in technology, in most schools, students are working on separate computers on one program and that is what others call their technology classes. They are learning to use a certain program and there is this output they are supposed to get.” The administrator (personal communication, October 21, 2015) elaborated on the role technology plays in arts integration at Arts School:

Technology is a part of the whole collaboration process. Technology is a part of the arts integration team. We have been real intentional about his [technology teacher’s] schedule. He does not have a tech class scheduled with a certain grade level each week so that he can have more flexibility and can push-in and maybe be in third grade for 4 days in a row to complete a project. Or, maybe the teacher sends them [students] down to the lab. Technology is really developed grade-by-grade and teacher-by-teacher with him. He is always trying to stay on top of the new stuff and pushing teachers to try new things.

The administrator (personal communication, November 23, 2015) summed up her interview praising the commitment of her school community to arts integration by stating,

Space within our facility is always a challenge. We do have a separate room for all of our arts teachers. It takes a lot of time. The collaborative and the arts integration are a challenge. But we make it work. The positives far outweigh the challenges.

Chapter Summary

The purpose of this case study was to examine teacher perceptions of how the implementation of arts integration practices and programs promote student acquisition of

the 4 C's. The study of Arts School was guided by three research questions focusing on strategies for implementing a school-wide arts integration program, strategies for implementing the 4 C's, and 21st century support systems. The researcher collected and analyzed qualitative data in the form of interviews, observations, and document analysis. The teacher perceptions of the strategies and methods used to implement a school-wide arts integration program included collaborative planning, leadership support, process learning, multiple learning pathways and measures of success, professional development, community partnerships, and reflection for growth. Data indicated these practices align with the 21st Century Support Systems described by P21 as deemed necessary for implementation of 21st century skills. Perceptions derived during this study indicate arts integration practices foster student acquisition of the 4 C's through group projects, student analysis of artistic work, student choice, and student expression of knowledge and ideas. Discussions and conclusions related to the data as well as recommendations for future studies are discussed in Chapter 5.

Chapter 5: Conclusions, Discussions, and Recommendations

To be competitive in a global economy, today's managers expect to hire employees with skills such as critical thinking and problem solving, communication, collaboration, and creativity and innovation. Educators are responsible for preparing students for college or career in the 21st century. The key literature found three major business surveys of managers and business executives that itemized the work skills deemed necessary for employment in the 21st century. Comparison results from the surveys indicated entry-level positions in organizations will require employees to be able to communicate, collaborate, and problem solve. Executives cited proficiency in reading, writing, and mathematics as not sufficient if employees were unable to think critically, solve problems, collaborate, or communicate effectively (AMA, 2010; NACE, 2014; P21, 2008). The AMA (2010) survey also reported United States executives believe there is much room for improvement in today's workforce and believe it was easier to develop the 4 C's in students (58.6%) rather than experienced workers (28.8%). The NEA (n.d.) asserted, "It is clear that the 'Four Cs' needs to be fully integrated into classrooms, schools, and districts around the country to produce citizens and employees adequately prepared for the 21st century" (p. 6). Today's students, to succeed in the 21st century, must be taught the necessary skills to acquire mastery of rigorous standards and acquire the cognitive and social skills to compete and function in a globalized society and economy (P21, 2006; Taylor, 2011).

Review of the literature revealed arts education strategies, particularly the technique of arts integration, have engaged students in the learning process by preparing them to thrive in the 21st century's global economy with skills such as creativity and innovation, critical thinking, collaboration, and communication (PCAH, 2011). The A+

Schools Program has been commended as a whole-school reform model that incorporates recent brain research, 21st century skills, and Gardner's (1993) theory of multiple intelligences while integrating academic subjects with dance, drama, music, visual art, and creative writing (A+ Schools Program of the North Carolina Arts Council, n.d.).

The purpose of this case study was to examine teacher perceptions of how the implementation of arts integration practices promotes student acquisition of the 4 C's. The A+ Schools Program, with its emphasis on arts integration, has been found to be a successful strategy to enhance learning across the curriculum. The program's eight core principles, or Essential Commitments, were created using 21st century skills, experiential learning theory, and multiple intelligences theory integrated across the arts and subject areas (Arts for All, n.d.). The study included educators at a kindergarten through Grade 8 charter school that maintains a "substantive A+ identity wherein most school staff considered the arts in making important decisions about school operations and made repeated attempts to integrate the arts into major subject instruction and to integrate the major subjects into arts instruction" (Noblit et al., 2009, p. 88).

The guiding question for this study was, "What is the impact of a school-wide arts integration program on creativity, critical thinking, collaboration, and communication?" Qualitative data in the form of individual interviews, focus group interviews, observations, and document analysis were the instruments used to answer the three research questions.

- RQ1. What strategies/methods are used to implement a school-wide arts integration program at this school?
- RQ2. What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school?

RQ3. What 21st century support systems align with the school-wide arts integration program at this school?

This chapter provides a summary of the study and discusses the major findings and researcher interpretations. The research findings are organized by each of the research questions with the themes generated in this study incorporated where appropriate. Researcher conclusions are drawn at the end of each section. Related literature and the theoretical underpinnings guiding this study are addressed throughout. Researcher recommendations based on the results are offered.

Summary of the Study

This case study revealed the school-wide arts integration strategies and methods utilized by one school to ascertain how these practices promote student acquisition of the 4 C's. The study focused on arts integration strategies and methods of implementation, 4 C's strategies and methods of implementation through arts integration, and the support systems at the school conducive to these practices. A qualitative case study format was chosen as the best method for understanding teacher perceptions of the relationship of these practices with student acquisition of the 4 C's. Rather than conducting research at several A+ Schools, the researcher chose a North Carolina A+ School that has a mission of becoming a national benchmark in the practices of arts integration in order to provide an in-depth description of the phenomenon for deeper understanding. Data for the study was gathered from Patton's (2002) three types of data instruments: open-ended interviews, observations, and document review. The data collection tools were created by the researcher to support the purpose of the study and to answer the research questions. To broaden the data collected, participant involvement in each instrument varied. Individual interviews were conducted with the site administrator, the Enterprise

and Development Manager, and seven teachers. All interviews were transcribed by the researcher and coded for themes and subthemes. Emergent themes from the interview responses were noted and used to compare with informal observations and review of related documents to examine the themes more in-depth. Initially, the plan was to conduct at least two focus-group interviews with participants from various grade levels. However, due to limited participation, one focus group was conducted with the AIT members only. The purpose of this group interview was to discuss and gather additional information about the themes identified from teacher interviews as best practices for arts integration at Arts School and to determine the perspectives of the arts specialists regarding the strategies and/or methods used to foster student acquisition of the 4 C's. The focus group was recorded and later transcribed by the researcher and used to triangulate data and compare themes. An observation guide was created by the researcher and used to gain a deeper understanding of the participant perceptions and to support findings from interviews and document reviews. As suggested by P21 as support systems needed for implementing 21st century skills, the observation tool ensured field notes were focused on the five support systems including standards, assessment, curriculum and instruction, professional development, and learning environment. Documents pertaining to the five support systems and emergent themes based on teacher interviews were collected and analyzed allowing the researcher to further triangulate the data for qualitative validity.

Interpretations and Conclusions

RQ1: What strategies/methods are used to implement a school-wide arts integration program at this school? Data gathered from interviews, observations, and document analysis revealed common themes or practices implemented at the school to

sustain the school-wide arts integration program: collaborative planning, leadership support, focus on the process of learning rather than the product, multiple learning pathways and measures of success, professional development, community partnerships and relationships, and reflection as a tool for growth. The themes were identified through data reduction, analysis of strength codes assigned to each theme, and the cross-referencing of data instruments for further verification. These findings, supported by literature on best practices in arts integration, and the A+ School's philosophy and Essentials are discussed in this section.

The teachers at Arts School were committed to weaving the arts and the core curricula together to create an environment where all students can be successful. Arts integration practices at Arts School align with the constructivist approach to teaching which include drawing on student prior knowledge, providing opportunities for student interactions, offering hands-on learning experiences, engaging students in reflection, using self- and peer assessments, providing opportunities for revising and sharing of work, and fostering a safe and supportive environment where students can explore and take risks (Silverstein & Layne, 2010). Evidence of a constructivist learning environment included students engaging in problem-solving and exploration activities while working on various projects in small groups. This social learning is associated with the principles of constructivism indicating learning is an interactive experience in which children share ideas and engage in meaning-making with one another (Vygotsky, 1978). The arts at Arts School were approached through active learning and were perceived by participants to provide experiences fostering student acquisition of the 4 C's.

Arts-integrated experiences were planned by the teachers at Arts School to foster creativity through the sharing of ideas, asking of questions, and discussion of processes

which readily fostered the 4 C's through social interaction. Teachers in the study perceived a supportive collaborative environment as an important factor for being successful at planning engaging arts-integrated experiences for students. Collaboration through team teaching, regular meetings with arts specialists, visiting artists, partnerships with local schools and organizations, and individual and group professional development opportunities provided teachers with a variety of strategies to engage students with the curriculum through an art form. Current research aligns with the teacher perceptions of the importance of professional development indicating quality teacher preparation better disposes teachers for efficiently engaging students in problem solving (Klem & Connell, 2004; Schwerdt & Wupperman, 2011; Wenglinsky, 2002). Students need active learning and engaging experiences in order to gain knowledge and support knowledge retention (Alfieri, Brooks, Aldrich, & Tenenbaum, 2001; Carter, 2008). Seidel et al. (2009) reported that students move from passive to active learners in the arts by going from a receiver of learning to that of creator.

Teachers in the study discussed the utilization of multiple learning pathways such as Gardner's (1993) Multiple Intelligence Theory to draw on individual learning strengths. The active learning in the arts taps into the various learning styles and multiple intelligences. Teachers in the study were unanimous in stating the importance of utilizing multiple strategies and methods to allow for student success. One teacher (personal communication, October 21, 2015) stated, "We are trying to give the students as many different opportunities to succeed as possible." Studies on student diversity in classrooms including readiness, learning style, home environment, culture, gender, and interest indicated teachers must adapt instruction to content, process, and product of instruction (Tomlinson, 2005). The process of learning was a strong theme generated

from this study suggesting teachers are more concerned that students understand the process of what they are learning rather than the creation of a final product. For the teachers in this study, it was not necessarily about getting the students to create a final product to be graded. It was, however, about the choices and decisions students make through collaboration with their peers, assessments, and reflection that provide them with opportunities to take risks allowing them to think critically and creatively. The teachers involved in this study believe arts integration relies heavily on the processes used during instruction to aid in student learning and understanding. Teacher 3 emphasized the practice of arts integration is the coming together of the academic subjects and the arts that really allows students to master or learn new things through multiple approaches.

Teachers discussed the importance of self-assessments, peer assessments and rubrics to generate feedback for growth during the learning process rather than just having an evaluation of the final product. Teachers emphasized providing opportunities for students to revise and improve their work by sharing it with others. The arts integration practices identified by participating teachers in this study align with Gardner's (1993) theory of Multiple Intelligences. Teachers provide multiple learning activities for students to demonstrate and share their learning. Engaging in the arts through dance, music, visual art, or drama draws upon the varying learning styles of students and supports their multiple skills and abilities.

Implications of findings from RQ1. The themes reported as best practices for school-wide arts integration implementation are important for several reasons. First, collaboration through team meetings, focusing on planning, reflection, and support are crucial to the success of arts integration practices. Teachers in the study collaborated to combine interdisciplinary teaching and daily arts instruction to afford opportunities for

children to develop creative ways of thinking, learning, and showing what they know. Commitment to using these practices was instrumental in promoting the success of their students. Meetings reduce isolated culture by embracing a culture of sharing and the collaboration of ideas. Although teachers did not call these meetings PLCs, the planning sessions functioned similar to those of a PLC as described by DuFour, DuFour, Eaker, and Many (2006). As DuFour et al. stated, a PLC “holds the greatest potential for improving the school from within” (p. 4). The premise of a PLC is the improvement of student learning through collaboration. DuFour (2004) argued, “To create a professional learning community, focus on learning rather than teaching, work collaboratively, and hold yourself accountable for results” (p. 1). Educators elsewhere seeking to employ arts integration strategies and best practices resulting from this study and confirmed by research can begin working in PLCs to examine their beliefs and vision and build a community around those commitments

Second, teachers in this study identified the leadership at the school to be supportive in their efforts to implement and sustain a school-wide arts integration program by maintaining a shared vision, providing individualized and group professional development opportunities, providing funding and resources, and providing time for teachers to collaborate. A successful leader, according to Hord (1997), facilitates the learning of all staff members, is also a learner attending professional staff development, and is friendly and facilitative in sharing leadership and power by giving staff decision-making input. In order for a PLC to be successful, principals must practice a leadership style where they are willing to give teachers autonomy over key decision making while making sure they are continuing to work toward the school’s vision and goals (DuFour et al., 2006). DuFour et al. (2006) maintained, “This clarity simplifies the decision-making

process and empowers all members of the staff to act with greater confidence” (p. 6).

Administrators seeking to initiate or sustain a school-wide arts integration program should have a clear vision, provide time in the schedule for teachers to collaborate, encourage the sharing of best practices, secure funds for resources and professional development, and establish relationships with parents and the local community. Support and autonomy by leadership with respect to the planning, delivery, and assessment of instruction empowered teachers to take risks and grow in their practices as a result.

Finally, professional development, both individually to address specific teacher needs and school-wide to benefit the entire school, were perceived by participants as a strategy for successful arts integration facilitation and fidelity. To support increased learning in the arts and embrace instructional changes, professional development is encouraged to support the school’s mission of being a national benchmark in arts integration. Participants interviewed agreed the school embodies a culture of ongoing learning by participating and presenting workshops, team teaching, and engaging in regularly scheduled AIT meetings. The administrator in this study surveyed staff to identify professional learning needs and maintained a log of workshops attended and presented by each teacher. To transform a school into a learning organization, Carroll (2007) recommended professional development align with student and teacher needs; otherwise the curriculum will not align with society’s demands, resulting in a breakdown for schools. Teamwork, the collective effort resulting from individuals joining forces to teach and learn, contributes to quality teaching and better prepares students for success in a complex world (Carroll, 2007). To implement a successful arts integration program, it is imperative that teachers are offered continued support in arts education to incorporate the development of these skills into the classroom.

RQ2: What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school? Business leaders are requiring employees to be competent collaborators and communicators as well as possess the ability to think creatively and to effectively solve problems. The major findings from this study divulged the practices of arts integration foster student acquisition of the 4 C's through the utilization of group projects, student analysis of peer and self-work, student freedom to make creative choices, and student expression and demonstration of knowledge through varying modalities. Arts School provided a set of arts integration strategies educators and educational leaders can utilize and implement to engage students in learning and assessing that learning through multiple pathways and learning styles. These practices provide students with an opportunity to engage and learn in a way that traditional learning methods may not allow.

Communication. The ability to communicate through the sharing, discussion, and presentation of ideas is an important skill valued in the workplace. This study presented findings that the arts integration practice of creative expression allows students to communicate their knowledge through various art modalities. According to Gardner (1993), the arts provide experiences in human expression found in language and nonverbal and sensory communication. All teachers in the study agreed the integration of the arts provides students a way to communicate or express themselves through movement, patterns and designs, writing, creative choice, gestures, dance, sounds, musical instruments, emotions, and feelings. Teacher 7 (personal communication, October 21, 2015) noted, "Each one of the art forms, in and of itself, is a form or method of communicating an idea or expressing an idea. I think that is the big overarching piece of the arts."

Students engage in intrapersonal and interpersonal intelligences when studying the arts. Processes such as listening, speaking, questioning, discussing, cooperation, and comparing and contrasting are skills developed through communication in the arts. Analyzing artwork through the articulation of thoughts and ideas using both oral and written communication was a theme generated in this study. Teachers placed great emphasis on the use of rubrics for peer and self-assessment. When used as peer assessments, students use communication skills by listening effectively to decipher meaning and intentions of their peers to understand how to improve their work. Teachers in the study expressed the difficulty of separating collaboration and communication, as many saw these concepts as working in tandem.

Technology was considered by all teachers in the study as being an art form itself, because students are exploring technological techniques to demonstrate their understanding of the core curricula through the 4 C's. Teachers do not drop students off at the technology lab and leave to plan instruction. In fact, the technology teacher does not have a scheduled class time for elementary technology instruction. The teachers and administrator expressed the need for a change from the traditional technology lab set schedule to a schedule with greater flexibility. As a result, teachers now collaborate to set up a technology lab schedule that meets the needs of the current project. This flexibility, according to participants, allows students to work on a project for several weeks rather than one time a week over a course of several months. Laptops are available for daily use, if needed. Utilizing word processing and multimedia programs allows students to express themselves through design and digital video production using digital photography and creating virtual 3D worlds and stop-action movies. Smart Boards, tablets, and laptops are utilized to access and present information. The students

utilize multiple media and technological tools and participate in real-world situations while learning the content and concepts within the academics. Teachers work in collaboration with the technology teacher to create a schedule and lessons to benefit student learning.

Collaboration. Stevenson and Deasy (2005) proclaimed collaboration during the creative process builds innovation and imagination skills allowing one to adapt or design new approaches. These skills are imperative in broadening student perspectives and are essential in meeting the demands of the changing workplace in the 21st century. The findings revealed group work in the form of projects and performances as a strategy used to facilitate collaboration. Teachers also team with other classes to support learning through the sharing of knowledge. All teachers interviewed stated the practice of allowing students to collaborate via small group, whole group, or with partners to foster competent collaborators. Marzano (2003) identified cooperative learning groups as an instructional strategy to increase student learning and understanding. Cooperative learning groups are documented to have a positive impact on student interpersonal relationships, attitudes toward learning, and achievement (Johnson & Johnson, 1999). The social interaction of the groups links with Gardner's (1993) theory of Multiple Intelligences supporting the learning preference for students with interpersonal intelligence. Through collaboration, students are sharing ideas, listening to one another, and compromising to reach a goal or solve a problem. Teacher 6 (personal communication, October 21, 2015) noted, "The artist is communicating something so they have to collaboratively work together on various projects." Gasser (2011) proposed that teachers relinquish control of the classroom and permit more collaboration among students, essentially placing more responsibility on students to take ownership for their

own learning.

Teachers stressed the importance of using rubrics to allow students to improve and grow in their ability to communicate and collaborate during group work. Commonalities among group project rubrics included having a cooperative attitude, offering support, individual contributions, leadership ability, nonverbal communication, effort, and being respectful. Student leadership, a pillar at Arts School, was mentioned by some participants during the interviews as a product of the collaborative process, although it was not indicative of a strong theme. Leadership, recognized as a 21st century skill, is emphasized as interpersonal awareness during the collaboration process. Teacher 2 (personal communication, October 21, 2015) shared her thoughts on leadership: “Just generating conversations by comparing and contrasting and generating similarities. I am not necessarily telling them. They are taking leadership.” Although this study did not address specific methods or lessons on how teachers teach skills in collaboration, the participants addressed collaboration as a shared student responsibility and an individual willingness to help others improve.

Critical thinking. Student self- and peer analysis was stressed by participants as a strategy used to facilitate the 4 C’s, particularly critical thinking through the practice of arts integration. Students in the study critiqued their own and others’ performances, products, and projects using both teacher-created and student-created rubrics. When analyzing pieces of art, students utilize metacognitive skills to make meaning and solve problems. Working with others to ask and answer questions in order to clarify and improve one’s thinking is a necessary skill in the 21st century. P21 (2015) asserted that students should be able to analyze and evaluate differing points of view and synthesize this information to make connections. Teachers in the study recognized the importance

of providing real-world activities, experiences, and feedback to guide students to develop critical thinking and problem-solving skills through the arts. Self-evaluation, rubrics, and critiques were utilized by students to analyze their work and the work of others in order to go back to the creative process and recreate their work to improve it. Teachers indicated the use of student self-evaluation tools to evaluate their own learning individually and in groups and apply that to future learning in order to improve. Assessing 21st century skills may provide challenges to teachers, although no one interviewed in this study indicated as such. Luterbach and Brown (2011) advocated that assessment of 21st century skills be diverse and document specific 21st century skills. The authors purported the use of student portfolios and a record of accomplishments as evidence of skill demonstration (Luterbach & Brown, 2011).

Teachers reported the value of this critical thinking strategy is the improvement of the individual student's creative work. Improvement in student work is due to the students creating something and then recreating it by solving problems through comparing, critiquing, reflecting, and exploring multiple viewpoints. Bloom's Revised Taxonomy, which focuses learning on knowledge and cognitive processes promoting higher order thinking such as evaluating and creativity was also utilized by teachers during lesson planning and implementation to foster critical thinking skills. Sousa (2006) concluded Bloom's Revised Taxonomy combined with art experiences offers countless challenges and opportunities for students to draw upon experiences and resources to create a result. Citizens and workers in the 21st century must be able to exhibit a range of functional and critical thinking skills related to technology skills such as accessing and evaluating information; analyzing and creating media products; and applying technology as a tool to research, organize, evaluate, and communicate information (P21, 2015).

Technology, deemed a fifth art at Arts School, was utilized by students to plan, design, and execute real-world problems.

Creativity. A strong theme expressed by teachers was the importance of allowing students choice, within the arts, as a foundation for acquisition creativity; one of the skills deemed necessary by employers in the 21st century. Teacher 7 (personal communication, October 21, 2015) responded, “Students have choice to be creative. So there is something that is valued about the creative way of getting to the product. And they are free to do that. We don’t tell them exactly how.” By allowing students the freedom during the creative process, they are provided an opportunity to think critically about the creative choices they are making. Teacher-created rubrics also support the teachers’ beliefs that students are free to design, solve, or create something without being told how. Guidelines are given, but it is the freedom of choice that allows students to think critically and creatively. Runco (2007) surmised children may lose the ability to offer original ideas when confronted with the demand of conventionality.

Through creative choice, teachers encourage risk taking. One teacher (personal communication, October 21, 2015) elaborated, “We have a culture that allows and encourages risk and allows failure. Because through failure, you learn.” The strategy of creative choice allowing for risk-taking confirms P21’s (2015) assumption that students should be able to demonstrate originality and inventiveness in work and view failure as an opportunity to learn the creative process is cyclical and includes both successes and failures. According to Gardner (2008), the creative mind can be cultivated with an education featuring exploration, challenging problems, and encouragement of productive mistakes.

Implications of findings from RQ2. As more emphasis is placed on preparing

young people for the demands of the 21st century workplace, this study sheds light on the relevance of arts integration practices with real-world skills such as critical thinking and problem solving, communication and collaboration, and creativity and innovation.

Carroll (2007) suggested that to address the needs of today's learners, normative traditions of stand-and-deliver instruction are to be replaced with teachers who know how to create a learning culture that fosters problem solving, innovation, and communication skills they will use in the workplace.

Communication skills, estimated to be 81% of jobs in 2014, are of critical importance in expanding services through establishing relationships with customers and fellow employees. Skills such as effective listening, empathy, negotiation, and explanation are essential in the service industry (NEA, n.d.). Although education has emphasized reading, writing, and speaking skills, employers maintain high school graduates are lacking in these areas. The rise of technology and rapid changes in technology tools have placed greater emphasis on the ability to communicate effectively in a global economy. Arts integration is an approach educators can use in the classroom to integrate communication skills to help students effectively articulate ideas. Students communicate through a variety of contexts and art forms to express ideas and interpret the ideas of others.

Communication and collaboration are interconnected, as perceived in the study, and backed by research. In order to communicate effectively, one must be understood. Collaborating in the classroom through group projects is one way students can demonstrate respect, flexibility, responsibility, and compromise. Teachers can implement problem-based learning activities during group work to allow groups to generate knowledge and understand the value of collaborative work and individual

contributions. Arts integration can be utilized to develop collaborative skills in students by equipping students with tasks in which they have to give and receive constructive criticism and work as a team to accomplish common goals. The development of leadership skills was cited in this study as an outcome of arts-integrated group projects. Research confirms students who participate in the arts develop leadership skills including decision making, strategy building, planning, and reflection (Heath & Wolf, 2005). To prepare students for success in work, teachers can increase their student interactions in the classroom by incorporating group projects that involve real-world projects to mirror the way in which adults collaborate to solve problems.

Critical thinking, in this study, was strengthened through student analysis and critique of art work. Through the creation and discussion of a piece of work, students engaged in monitoring their own progress to revise the original work to improve the outcome. The application of critical thinking to understanding and evaluating art work supports the skills in making judgments and decisions, solving problems, and reasoning effectively. Incorporating arts integration practices in which students analyze their own and others' work provides an avenue for teachers and education support professionals to practice to better prepare students for workforce skills.

Creativity and innovation are essential skills needed to flourish in the 21st century. Participation in the arts as the creator, performer, and responder enables students to explore a variety of processes and higher-order thinking skills. Pink (2006), an authority on creativity, emphasized the importance of cultivating one's artistic sensibility because the world is enriched by the automation and outsourcing of white-collar work. Pink believed to propel in the economy, people must be designers. Arts integration, in the present study, promoted student creativity by allowing students

freedom to make artistic choices across disciplines. To incorporate more creativity in the classroom, teachers may have to give up some control and provide more responsibility to students, thus allowing students flexibility in creativity and innovation. Failure should be viewed as an opportunity to learn, offering students time to invent new ideas to maximize creative efforts.

RQ3: What 21st century support systems align with the school-wide arts integration program at this school? The present study revealed the school-wide arts integration support structure aligns with the 21st century support systems, suggesting arts integration practices at the research site make a contribution to the development of 21st century knowledge and skills. The five elements described by P21 as critical systems necessary to ensure student mastery of 21st century skills included 21st century standards, assessments, curriculum and instruction, professional development, and learning environments. These elements, when compared to the arts integration support systems, were aligned to produce a structure that demonstrates arts integration supports 21st century outcomes for students.

The participating site supports the philosophy of arts integration by fostering shared leadership, maintaining a shared vision, and providing relevant professional development opportunities (A+ Schools Program, 2012). This researcher found that through collaboration and individualized and school-wide professional development, teachers at Arts School were dedicated to supporting one another and helping one another succeed. Collaborative learning took the form of team teaching and reflection exercises to better carry out the mission of the school by exploring and learning arts practices together and then reflecting on how this new learning can be offered to the students to enrich their learning. Brooks and Brooks (1999) argued constructivist teachers engage in

ongoing reflective practice to assess their teaching practices. Similar practices in this study found that teachers identified the continual practice of reflection as an important avenue for growth, not only for them but for their students as well. Assessment practices including portfolios, performances, projects, rubrics, and informances provide teachers with authentic ways to evaluate student success in 21st century skills. Arts integration is “substantive” at Arts School because of the support of leadership to provide time in the schedule for collaborative planning meetings, funding and resources, and supporting professional development opportunities.

John Dewey, the father of experiential learning, advocated for instruction that used the arts to involve students and to make learning active (Goldblatt, 2006). Experiential Learning Theory is a primary tenet of the A+ Schools Program and, as such, is an essential commitment and practice of Arts School. Dewey’s (1938/1997) philosophy of learning by doing, rather than rote-learning, places emphasis on student understanding of actual experiences rather than the delivery of knowledge. In this study, field trips, service learning, problem-based learning, inquiry-based projects, artistic performances, role-plays, and STEAM activities are important avenues for providing students with arts-based and hands-on learning experiences.

Dewey advocated the design of curricula should focus on both content and process, include cooperative learning and problem solving, and be based on experience. This study documented how one school implements Dewey’s learning theory to integrate the arts curriculum with the North Carolina Common Core and Essential Standards to provide opportunities to connect learning to real-life experiences. This connection between arts education and experiential learning is established as educators and students connect with thoughts and emotions through the experiences created and recollected in

the arts.

Implications of findings from RQ3. Teachers in the present study stated one does not have to be artistic to integrate the arts. In a study conducted by Oreck (2004), it was concluded that neither prior arts instruction, artistic practice, nor years of teaching experience were related to arts integration. This is important for educators who may want to implement arts integration practices and feel they have had inadequate training in the arts. Improving and increasing arts integration practices can be supported from field trips to local businesses and organizations such as museums, universities, farms, and local artists. Visiting artists, musicians, historians, and artisans can provide a wealth of knowledge to both faculty and students. Limited funding should not deter a school from seeking professional development in teaching an art form. Art teachers on staff or in the county, college students, and parent volunteers with expertise in art forms can assist with professional learning.

School conditions essential for sustaining arts integration practices, as cited by Oreck (2004), include adequate time to plan and teach, adequate space, and support from administrators. These three support systems were deemed essential by teachers in this study. Similarly, Noblit et al. (2009) found professional development programs at A+ Schools that included the entire school faculty created an environment conducive to innovation and change. Having the support of leadership to implement an infrastructure conducive to scheduling time for collaboration and professional learning is essential to the implementation of a school-wide arts integration program that supports the teaching and learning of 21st century skills.

The quality of arts programs and funding for arts resources varies from school to school. Lack of physical space, access to technology, and limited resources may hinder

support for an arts program. Establishing relationships and partnerships with parents and the local community may improve the quality of the learning environment in the arts through donations, in-service learning projects, and arts education programs.

Assumptions, Limitations, and Delimitations

The purpose of this study was to examine the impact of a school-wide arts integration program on the 4 C's. It is assumed the participants understood the purposes of the study and the related interview questions as the researcher intended them to be understood. Likewise, it was assumed the teachers in the study implement arts integration practices and 21st century skills into their lessons. Further, it was assumed the perceptions of the participants were truthful and unbiased.

Limitations to this study included the self-reported nature of participant responses due to time constraints which may have limited the information acquired during the interview and site observation. The study focused on one North Carolina A+ School, allowing the researcher to obtain rich descriptions of participant perceptions.

Generalization was not the goal of this study. Qualitative data allowed the researcher to “focus on individual meaning, and the importance of rendering the complexity of a situation” (Creswell, 2014, p. 4) at the participants' setting to make interpretations of the meaning of the data collected. The sample size for the study was limited to the number of teacher volunteers at one site. The researcher recognized the possibility of personal bias of arts integration practices which could affect the information received and interpreted. Due to the study being qualitative, steps were taken to address these limitations and researcher bias to ensure internal validity of the study.

A delimitation of the study is the researcher gained the perspectives of only the school faculty. Parent and student perspectives may have provided greater insight and

additional information about the impact of arts-integrated practices in relationship to the 4 C's.

Recommendations

Teacher perceptions influence instructional practices, and instructional practices influence learning opportunities for students. The results of the exploration of teacher perceptions of the impact of arts integration practices on critical thinking, creativity, communication, and collaboration may influence policy, practice, and further research. While the results of this study may be local, they may also have merit for a broader audience.

Policy. Policymakers with an interest in the movement toward 21st century education systems should consider the following recommendations for incorporating the practice of arts integration into 21st century learning environments.

1. Provide education preparation programs with redesigned curriculum offerings to emphasize the connection between the arts and 21st century skills such as the 4 C's. Teacher learning should include inquiry, design, assessment, and collaborative approaches for exploring 21st century learning skills and strategies. A collaborative vision, mission, and input should be given from business, education, and government stakeholder groups.
2. Create a financing policy that provides additional funding for arts programs which includes assessment and accountability practices, teacher development, and improved technologies directed toward 21st century learning goals.
3. Create policies that encourage schools and departments of education to include internships and learning opportunities in the development of 21st century skills and researched-based instructional methods in arts integration.

More connections should be made in teacher education programs to emphasize the relationship between the arts and the 4 C's. Partnerships between model arts-integrated schools and universities should also be encouraged to promote transfer of student learning into classroom practice.

Practice. The case study revealed several support systems that are crucial to the success of the school-wide arts integration program at Arts School. Recommendations for leaders and teachers include ongoing professional development, adapting the school infrastructure to support teacher collaboration and reflection, and building partnerships with the school and surrounding community.

1. According to AEP (2011), school principals are the primary decision makers and decide if the arts are to be present and to what extent within a school. School leaders interested in increasing arts education or implementing arts integration practices can initiate researched-based practices. PCAH (2011) developed a list of actions and strategies school leaders can implement individually or collectively, to sustain or increase arts education (AEP, 2011). They include establishing a school-wide commitment to arts learning, creating an arts-rich learning environment, and rethinking the use of time and resources.
2. Adapt the infrastructure to support collaborative planning and teaching. Teachers in the study emphasized the importance of having dedicated time built into their schedule to collaborate, share teaching ideas, and plan lessons with colleagues. The allocated time would allow teachers to plan, implement, and reflect on teaching strategies that address arts integration and 21st century skills. Educators practicing arts integration need support and professional

development opportunities on how to use their current practices to foster and support the 4 C's. Hord (2004) examined PLCs and found five essential characteristics demonstrating effective reform strategies: supportive and shared leadership, shared values and vision, collective learning and application of learning, supportive environment, and shared reflection or practice. These reform strategies did not involve arts integration practices; however, these identified strategies can be utilized to develop a structure for PLCs. The support system of PLCs should enable educators to collaborate and share best practices to integrate the 4 C's and other 21st century skills into classroom instruction. Other areas conducive to providing supportive conditions identified by Hord (2004) included team building activities and designating specific times for collective planning and learning.

3. In this study teachers reported the value of building partnerships with area colleges and businesses. Through these relationships, students broaden learning through field trips to museums, art centers, symphonies, colleges, and farms. Service learning projects, identified as providing students with real-world learning opportunities, are another way schools can partner with organizations to enhance student experiences. Building partnerships with the local universities provides student teachers an opportunity to be mentored by teachers at Arts School to learn how to integrate the arts and 21st century skills into their lessons. Relationships such as these better prepare students for the real world and future success.

Future research. The findings from this case study offer insight for future research. To gain an increased understanding of the impact of arts integration practices

on the 4 C's, further research is recommended in the following areas.

1. Expand the research beyond one A+, or arts-integrated, school to include a broader population for data analysis and generalization.
2. Explore the relationship of community and parent partnerships with the practices of arts integration and the 4 C's.
3. Conduct a longitudinal study to track student acquisition of 21st century skills through the practice and programs associated with arts integration. In addition to teachers, the study may include students, administrators, and parents.
4. Conduct a study to examine teacher motivation, self-confidence, and self-efficacy incorporating 21st century skills into arts or other content area instruction. Such a study may determine areas of professional development needed to support the implementation and sustainability of 21st century teaching and learning.
5. Conduct research at the university level to determine if and how the 4 C's of 21st century skills are being incorporated into teaching methods. A similar study could be conducted to determine if and to what extent the practice of arts-integrated practices are addressed.

Final Summary

This study served to determine how teachers perceive the school-wide practices of arts integration in promoting student skills in communication, collaboration, critical thinking, and creativity. A qualitative case study was conducted at a kindergarten through Grade 8 charter school with a school-wide vision and practices centered around arts integration. Data were collected via interviews, observations, and documents.

Analysis of data conveyed four themes, or identified strategies, perceived by teachers that

facilitate the development of the 4 C's through the practices of arts integration: student engagement in group projects, student analysis of artistic work, student creative choice, and student expression of knowledge through multiple art forms. The results of this study are intended to add to the literature on the practice of teaching the 4 C's of 21st century skills through the practices of arts integration. In the 21st century, business leaders are requiring employees to communicate and collaborate effectively and to solve problems through creativity and critical thinking. Educators are responsible for preparing students with skills needed to be college and career ready. Programs such as arts integration provide opportunities for students to foster the 4 C's through engagement in authentic learning experiences, better preparing them for the challenges and workforce of the 21st century.

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Appendix A

The A+ Essentials: A Set of Commitments

<p>Arts In A+ Schools the arts are:</p> <ul style="list-style-type: none"> • experienced through education, integration and exposure • inclusive of drama, dance, music, visual arts and creative writing • included in curriculum planning and design • integrated in all content areas • valued as essential to creativity, learning and personal experiences • a part of the whole school's identity 	<p>Curriculum In A+ Schools curriculum is addressed through the use of:</p> <ul style="list-style-type: none"> • curriculum exploration and mapping • intentional cross-curricular and two-way integration • cross-discipline, horizontal and vertical alignment • enhanced conceptual connections • teacher and student created essential and focus questions • teacher created integrated lessons and thematic units 	<p>Multiple Learning Pathways In A+ Schools learning takes varied pathways through:</p> <ul style="list-style-type: none"> • multiple intelligences theory and practice • brain research and brain-based philosophies • a focus on building 21st century skills and the whole child • ongoing reflection on planning and assessment • balancing learning opportunities for all students 	<p>Enriched Assessment In A+ Schools enriched assessment is:</p> <ul style="list-style-type: none"> • designed for learning • inclusive of arts and MI • ongoing and integrated • experiential and collaborative • a reflective practice • used to help meet school system requirements • used as a self-assessment tool by teachers & students
<p>Experiential Learning In A+ Schools experiential learning is grounded in:</p> <ul style="list-style-type: none"> • student engagement • arts-based and hands-on learning experiences • the creative process and inquiry-based instruction • the understanding of entry points and differentiated instruction • multi-faceted assessment opportunities 	<p>Collaboration In A+ Schools collaboration:</p> <ul style="list-style-type: none"> • is intentional and valued • is fostered by administration and faculty • is given priority by providing time for classroom and special area teachers to plan together • occurs throughout the day and in many ways • helps to build relationships within and outside the school community 	<p>Climate In A+ Schools climate is enhanced because:</p> <ul style="list-style-type: none"> • students and teachers are excited about learning • supportive environments build morale and reduce stress • there is a focus on life-long learning for the entire school community • teaching and learning through arts and MI is fun • sharing and celebrating together builds joy 	<p>Infrastructure In A+ Schools infrastructure supports the philosophy by:</p> <ul style="list-style-type: none"> • fostering supportive and shared leadership • addressing daily logistics to allow for collaboration • providing appropriate space and supplies for the arts • continually developing faculty commitment and maintaining a shared vision • providing relevant professional development and mentoring new faculty

A+ Essentials revised by NC A+ Schools and Fellows, June 2012.

Originated by the North Carolina A+ Schools Network, a network of teachers, coordinators, principals, and A+ Fellows. © 2001 A+ Schools Program . Used with permission.

Appendix B

Permission Letter for Study

May 19, 2015

Ms. Lori Cozzi
Executive Director
ArtSpace Charter School
2030 U.S. Hwy. 70
Swannanoa, NC 28778

RE: Permission to Conduct Research Study

Dear Ms. Cozzi,

I am currently enrolled in the Education Doctoral Curriculum and Instruction program at Gardner-Webb University. I am requesting permission to conduct research at ArtSpace in the fall of 2015 for my study titled, *A Case Study of Arts Integration Practices in Developing the 21st Century Skills of Critical Thinking, Creativity, Communication, and Collaboration*.

The purpose of this study is to explore how teachers foster acquisition of the 21st Century skills of creativity, critical thinking, collaboration, and communication (4 C's) through the school-wide arts integration program. If you decide to participate, a combination of in-depth interviews, document analysis, and observations will be utilized to examine the teachers' perceptions. To maintain confidentiality, the name of the school, participant information, and district will be changed.

Specifically, I am interested in learning more about arts integration practices and how they are implemented in the curriculum at ArtSpace. Because the school's vision is to be a "national benchmark in educational excellence through integration of the arts" and has been honored as an exemplary arts integration school, results from this study could be used to influence educational decisions regarding arts integration practices.

I would not begin data collection until August or September of this year. Please contact me via email at XXXXXXXXXXXX or phone XXXXXXXXXXXX regarding any thoughts, questions, or concerns you have. Your approval to conduct this study, and contribution to the data, will be valued and greatly appreciated.

Sincerely,

Cari Maneen

Appendix C

Teacher Participation Informed Consent

Teacher Participant Consent Form
Gardner-Webb University

You are invited to participate in a study to examine the perceptions of how arts integration practices and programs promote student acquisition of the 21st Century skills of creativity, critical thinking, collaboration, and communication. An understanding of teachers' perceptions will offer insight to the educational community of how an arts integration model can be used to integrate 21st Century skills into the school's programs, professional practices, and curriculum.

Research Title:

A Case Study of Arts Integration Practices in Developing the 21st Century Skills of Critical Thinking, Creativity, Communication, and Collaboration

Purpose of the Study:

The purpose of the study is to reveal the practices of a model arts-integrated school in relation to student acquisition of the 4 C's.

Research Questions: The research will focus on three questions:

1. What strategies/methods are used to implement a school-wide arts integration program at this school?
2. What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school?
3. What 21st century support systems align with the school-wide arts integration program at this school?

Procedures:

I am requesting participants be involved in focus group and/or individual interviews discussing their experiences, perceptions, and beliefs regarding arts-integrated practices and the 21st century skills of creativity, collaboration, communication, and critical thinking. Interviews will be conducted by the researcher at an agreed upon time, may last no longer than 1 hour, and will be kept confidential. All interviews will be audiotaped, transcribed to facilitate data analysis and interpretation, and given to each participant for review of accuracy of content before the work is made available for others to read. The researcher will also conduct site observations and review documents, such as lesson plans and class websites, to better understand the practices and experiences of the program.

By signing this consent form, I:

1. Voluntarily agree to participate in the study.
2. May not personally benefit from this study, but the knowledge gained from the study may be beneficial to others.
3. Am free to refuse to participate and to withdraw from the research study at any time without prejudice to me.
4. Understand my participation and all documents obtained from the study will not be used in an evaluative manner.
5. Acknowledge that records from this study will be kept safe and confidential and, if applicable, pseudonyms will be used in the final document.
6. Agree to participate in audio-recorded interviews with the researcher.
7. Agree to review the transcripts from the interviews for verification of accuracy, as well as contradictions, and to discuss these findings with the researcher.
8. Agree to provide arts-integrated lesson plans and any other documents that will provide information about the process of arts integration in relation to the 4 C's.
9. Understand there are no risks from this study other than low levels of stress during the interview and observations.

If you have any questions regarding the research process or your participation in this study, please contact Cari Maneen at XXXXXX by email at XXXXXX. Again, your participation in this study is voluntary and you may withdraw from this study at any time.

Check one box:

- I choose to voluntarily participate in the study and have read the above information.
- I choose to opt-out of the study.

Printed Name of Participant

Signature of Participant

Date

Signature of Researcher

Date

Appendix D

Focus Group Interview Guide Protocol

FOCUS GROUP INTERVIEW PROTOCOL

A Case Study of Arts Integration Practices in Developing the 21st Century Skills of Creativity, Critical Thinking, Collaboration, and Communication

- **Thank you all for coming.** I know this is a busy time of year and I appreciate you taking the time to meet with me and participate in this study.
- **Review research study:** The purpose of the study is to reveal the practices of a model arts-integrated school in relation to student acquisition of the 4 C's. Because you all teach at an A+ school, with a focus on arts integration, I want to gain your insight.
- I have **consent forms** for you to look over and sign. Collect forms prior to the interview.
- I am going to **take notes and audio-record** this so I can transcribe it and later evaluate it.

Student Acquisition of the 4 C's:

(RQ2): What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school?

1. How does arts integration contribute to the development of creativity?
2. How does arts integration contribute to the development of critical thinking?
3. How does arts integration contribute to the development of collaboration?
4. How does arts integration contribute to the development of communication?

Appendix E
Interview Guide Protocol

INTERVIEW GUIDE

A Case Study of Arts Integration Practices in Developing the 21st Century Skills of Creativity, Critical Thinking, Collaboration, and Communication

1. Review research study and obtain signature on Consent Form prior to interview.

2. Participant Contact Information:

Name: _____

Phone: _____ (C) _____ (W)

3. Interview Schedule:

Date: _____ Location: _____

Time: _____ to _____

4. Interview Questions:

Background Information:

How many total years have you been teaching?

How many years have you been teaching in your current school?

What grade/subject do you currently teach?

Arts Integration Strategies and Methods:

(RQ1): What strategies/methods are used to implement a school-wide arts integration program at this school?

1. Describe the school-wide arts integration program.
2. What strategies and methods do you use to implement a school-wide arts integration program?
3. Describe how you plan for arts integration.
4. Where do your teaching standards come from?
5. Describe your assessment practices in the arts.
6. Talk about arts-integrated professional development at your school.
7. Describe the support systems in place for the arts integration program. Human support? Fiscal support? Scheduling? Collaboration? Community? Parents?
8. What does success look like at your school?

Student Acquisition of the 4 C's:

(RQ2): What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school?

9. Does the school's philosophy of arts integration reflect collaboration? communication? creativity? critical thinking? If so, how?

10. Is there anything you would like to share about arts integration practices or 21st century skills that you haven't already shared?

5. Follow-up Questions (if needed).

What do you mean by _____?

Tell me more about _____.

Would you elaborate on that?

Could you be more specific?

Why is that important to you?

Can you give me an example of _____?

6. Thank participant

Thank you so much for volunteering your time with me today to describe your experiences teaching in a testing grade at an arts-based school.

I can assure you that your responses will be kept safe and confidential.

I will transcribe this interview and then share a copy of the transcript for your review within the coming weeks. You will be given an opportunity to provide feedback on the validity of the transcription.

Sample Teacher 2 Interview

RQ1: What strategies/methods are used here to implement a school-wide arts integration program?*1. Describe the school-wide arts integration program.*

Well, we are fortunate to have the meetings we have scheduled into our daily and weekly routine. We try to first meet and an arts integration team and discuss the needs first of our marketing strategies. Are there any pressing issues with students? Are their opportunities for professional development available? So, that is more of our first meeting. Then, on Tuesdays we meet with two different grade levels per month. So, we started something new this year that I really think has helped. We send out a collaboration tool the week before so we can get ideas from the teachers of what are some holes in their nine week planning or yearly plan where they would like to use more integration. Maybe something that they do a lot of visual art, but they want to try drama, or dance, or music. So, we ask for that ahead of time so we have time to prepare materials and resources rather than discussing it at the meeting and everyone trying to think on the spot and sort of got the pressure on. So, that has been very helpful to know ahead of time which has really helped with the integration.

2. What strategies and methods do you use to implement a school-wide arts integration program?

We have also been thinking a lot more about the process. What is it that we are looking for? How are we going to achieve that? What is it that the students are being asked to do? Do they understand why they are being asked to do that? Sort of now making it a big, grand reveal at the end like, "Look what you did!" But, all along knowing they were all going to reach the same goal and know why they were doing it. I have approached that a lot more thoughtfully this year. I am not doing integration for integration sake. Trying to document that more and I think it is going to be evident in the human body we are going to perform today. Or inform today, because it is called an informance. (4.0)

We are a lot more intentional. When I say "we" I am specifically speaking of Mary and I because we have mirrored schedules. So, a lot of times Mary, the dance teacher and I, will plan together. It is like tandem planning when we do the whole group with drama, art and tech and Mary and I have the same schedules with opposite classes so we like to plan together a lot also. Which is super helpful and she is just fantastic and we work really well together. She has helped me be more intentional about the process, and not just choosing a song because it has something to do with fall. So, what's the rhythmic component behind it? What's the melodic component? What's appropriate for that grade level? Cause those things are really important too. I think that gets misconstrued. Oh, you can just teach a song about rain because we are learning about weather. I can't do that. I mean, I could. But, I won't, cause there is no substance behind it. (5.22).

It is a song that they can memorize. But, are they learning correct pitch? Or, are they just mimicking what they have heard. So that is how I select my song choices. I think I am probably going beyond your question.

3. Describe how you plan for arts integration?

For Mary and I, there is a lot of outside of school planning done. That's for sure. I mean Mary and I are just, it is just the kind of job that you have to want to do well at it because there is just so much. It is so much and if you don't try to strive to be the best teacher you can be, it is never going to work. It is never going to reach its full potential. We live close together, so sometimes we will meet at coffee shops and stuff. We will do what we have to do with the time allowed in school.

Does Lori put together the schedule and allow teachers on the same grade levels or similar subject common planning time?

Our schedule has changed a little bit this year to allow for common planning. Wednesdays are open, but Wednesdays are also our performances. But there will be some days when we have a good amount of planning but those are half days so some days it will be professional development. So, not all of the time do we have a ton of planning. We also have this thing called "flex" and sometimes we will lose our planning if we choose to work with a group. So, our schedule has changed a little bit, which I like better. We all have the Friday afternoon open but we definitely use the Wednesdays more. So, we are all pretty much on the same schedule.

4. Where do your teaching standards come from? North Carolina

5. Describe your assessment practices in the arts.

That is a really tough one because we see so many students. This is a difficult question, because we are continually assessing. (8.06) I started bringing in these listening stations and keyboard stations this year to sort of like a reward, but it is also an assessment. I have them do worksheet while they are listening. I have them do worksheet on the keyboard, it is something they are earning, but I am also able to assess them. Are they actively listening, did you like it? Did you not like it? Why or why not? We talk a lot about unison.

Do you give a letter grade for music?

I give an effort grade in the lower grade. This is with all of the arts in the lower grades. It is a little different for me because we have multiple ensembles, so our 6th grade I see for chorus, but also for band, which students have elected for band.

They will get a grade based on effort. If they are not trying and if they are acting out or are intentionally trying to get other students to be off task, that definitely affects their effort grade.

6. *Talk about the arts-integrated professional development at your school.*

I have been really trying to take advantage of that my first couple of years just to learn from others, and Lori has been very supportive of that. I have one coming up in November with the Johnson City Arts Council Arts in Education. I have gone for the past two years and I have already used some of the stuff I have gotten. I have shared it with other teachers. I am going to take Orf classes to work toward my certification. We are really focused with bring more arts professional development to our staff without us having to go outside the school and get the professional development. Music is where I think our staff struggles the most. A goal of mine is to take my standards and put them in layman's terms. It could be very simple. I think people say, "I can't read music so I can't do it." But, you don't need to read music to integrate music into the classroom. Experiencing music through field trips is something we are talking about. I am actually talking with the Asheville Symphony to plan something. But, everything costs money so. We are fortunate to have a full-time grant writer also.

7. *Describe the support systems in place for the arts integration program.*

We are fortunate enough that it is pretty much our mission. We are very well supported. Arts integration is expected and it is encouraged. It's supported with the staff because they wouldn't be here if they didn't believe in the philosophy of arts integration. At the beginner teacher trainings that I have been to, I have met teachers who don't work at arts-integrated schools who are encouraged to integrate. These teachers have had a very sour outlook on it. They seemed like it was just one more thing they had to do. That was sort of the attitude about it. My attitude was I have absolute freedom. I am still teaching the same curriculum but they are asking me to do it in a fun, creative way that really resonates with the students especially whether you are left-brained or right-brained. How do you learn? How do you communicate? There is not just one way to teach. So, I found arts integration to be a blessing. These teachers seemed to think arts integration was an obstacle. I couldn't understand why.

What about support from parents or the community?

Yeah. I've had tremendous support with that. I've had a parent come in when I was doing a lesson with the recorder and offer to teach a lesson. She is a strings adjunct teacher at Warren Wilson. Lots of parent volunteers for our musicals. I have had parents help with ensembles. Parent volunteers come in ...[check number of hours parents volunteer]

I have gotten emails after performances. Lots of great feedback. I got an anonymous donation of \$5,000.00 for orf materials. It feels pretty nice that people are basically investing in me for their child's education.

8. *What does success look like at your school?*

I think I feel personally successful when I hear what I am doing in my classroom from people who are not in my classroom. For example, our drama teacher has a son here and he is in 2nd grade and I did a composer of the month here last year. And she said he is coming home and he is telling me where they are from, what their strengths were, what

they played, ya know pronouncing their names. I changed it because I did all Western European while males and I had some students ask me, “Are we ever going to have a woman for composer of the month?” So, I changed it to musician of the month this year and it is a lot more diverse culturally, ethnically, and gender wise. Right now we have Julie Andrews.

RQ2: What strategies/methods are used to foster student acquisition of the 4 C’s through arts integration at this school?

9. Does the school’s philosophy of arts integration reflect the 4 C’s?

I think depending on the project, it calls for either small group collaboration or whole group collaboration. I feel like a lot of what I do in here uses small groups. Rarely, very rarely, are students working on their own. If students choose to do that, I will let them. I think that everything we do in here: composition, looking for things in music, looking for analysis of song lyrics. It is usually a group project that generates conversation. I can only really speak about music because this is where I am all the time. Just generating conversations by comparing and contrasting and generating similarities. I think that fosters collaboration. How are they going to work together to create this piece. Here are the guidelines. You do this, I’ll do that. I am not necessarily telling them. They are taking leadership.

Critical thinking that is my analysis with the listening station. Students identify what they heard, how they feel about, if they can what they would change about it.

10. Is there anything you would like to share about arts integration practices or 21st century skills that you haven’t already shared?

I have the students who choose to be in band. I am really trying to drive home the career skill. You can have so many areas in music. You don’t have to be a professional musician. You can work in advertising, or business. You can be a music teacher. I try to show how much I love it. I just shared the other day that I got into college with my grades, but I also got into college with my audition process. The students see there are two different parts of that. It does take additional work if they are up for that. But, it is the most rewarding.

In terms of the other 21st century skills, I am really working on those this year. Because they seem to be everywhere. I really hone in on the 21st century skills with my students in grades 5-8. I want them to understand the “why” they are doing something. They will sometimes ask, “Do we have to do that?” And, I tell them, it is not a “have to”, it’s an opportunity. And a really good opportunity, because not every school has music.

Sample Teacher 6 Interview

RQ1: What strategies/methods are used here to implement a school-wide arts integration program at this school?*1. Describe the school-wide arts integration program?*

At this school, we like to say, we use all five arts, because we bring in tech arts into the mix as a viable component of the total picture; especially with 21st century skills. That's what I am all about; the 4 C's. Our program has evolved by having all of these arts available. We have the traditional arts of music, movement, theatre, and visuals are a part of the weekly program for K through 5 students. Sixth grade, we kind of diverged a bit, because we have introduced band. So that then allows visual and theatre every week, but then some are taking band every week and the remainder are taking technology and dance and movement. That is just the sixth grade experience. Now with 7th and 8th grade, we go total electives. I have some students that will focus in like technology all 4 quarters. Band is a requirement to be in it for the whole year because it just takes that kind of dedication. And most of our dancers usually stay with it for the whole year.

I would say the fact that we have all the arts on a regular basis from the concept side. From the skills side, we have the support for the teachers who will then bring into their classroom activities, so it really shouldn't be a case of, "Where do you have art?", it's just who we are. It's what I like to say, what others call special, we call Tuesday. In this case, Wednesday. We are doing this stuff [referring to human body performance] all the time. It is just a part of who we are.

2. What strategies/methods are used here to implement a school-wide arts integration program?

The strategies and methods we use, first off, is the dedication of resources—of the human resources to make it possible. It takes a lot of people to make this happen. The willingness of everyone to pitch in to give coverage so that a teacher can go to a AIT meeting, which is a monthly occurrence for them. The willingness and support of the AIT being able to meet on a weekly basis with all of the different grade levels. The willingness of the school, of the administration, of the board, to provide the financial resources to have five full-time specialists. This is a major commitment. What makes it worth it is that Lori has made sure have the time to collaborate with teachers. She sets up the schedule so we have lots of flex. She has supported my program to be total flex. We have found through experience that trying to do a tech project over one day a week, over a course of a month. They are so past that. They are gone. I will meet with a class maybe two or three times in a row, or maybe two weeks in a row. Having those scheduling times to make it work this way is a major, major factor. When you get results like this [referring to human body performance conducted by 5th grade students previously in the day], it takes a lot of collaboration. It has evolved over time. What you saw today is nothing that you would have seen three years ago. A commitment of these resources is crucial.

Question 3 was answered in the previous question.

4. Where do your teaching standards come from?

The technology standards in North Carolina, if you really look at them, the basic idea is research, design, present. K-8. It gets a little more complicated as you go up, but that is basically it. I teach the standards. On our report card this year with Mary's help is the AIT team is much more deliberate and a little more informative with their standards. There are five different things across the board, like demonstrate your understanding of the processes being used. I think they are creativity, application, presentation, and the 21st century skills of assessing your own learning. We definitely are standards-based, which is why we haven't gone with Power School's state report cards. We assess growth throughout the year.

5. Describe your assessment practices in the arts.

I do give assessments for my electives only, which is 7th and 8th grade. I assess them in a variety of ways. We do self-assessments. We do peer assessments. We will do group assessments. Sometimes it is written and sometimes it is oral. I am encouraging them to give constant feedback and listen to each other. Because that's where the growth is gonna happen. I am becoming much more deliberate with that. I used to be much more hands-off. I was more organic with it. But now, I work with Josh and we did this media elective in which the students created a commercial for the school. So, much more ongoing assessments and giving the students feedback. We are going to be much more deliberate with it next year. With more definite rubrics and notes of what we notice so students can look at it and we can look at it to see how it has changed or if it didn't change. Always reflective. That is one of the biggest strengths of this school. There is nobody who is content with what they did. They are always looking to make it better.

This is across the grade-levels and across the departments. We are allowed to fail. We have a culture that allows and encourages risk and allows failure. Because through failure, you learn.

Now, if you do it again, well that is a different point. Then you are having a principal talk to ya! [laughs]. Failure is o'okay. Two or three, now we got something we gotta look at—Why is this happening?

This risk-taking is for the students and for the teachers. And. It's hard for kids and parents too. They don't like the fact their kid didn't get the highest score. If we all get the highest score it is Lake woebegone. If everybody's terrific, then who is anybody? We do encourage failure. We don't encourage complacency. I always tell my kids, what Lincoln said, "It's not your failures that worries me; it's your complacency."

6. Talk about the arts-integrated professional development at your school.

Lori encourages us all to get the professional development we need and we do a PDP [Professional Development Plan] every year. So, it is individualized. Our staff professional development is usually based upon our school needs. Such as literacy, test scores, etc. But also, Lori likes us to do one arts professional development per year. We

always start our year with some kind of group project. We have done spontaneous operas. We have done a Dante's inferno—3 acts. At the beginning of this year, we did a happening. Something very artistic or expressionist that we always start our year off with the staff. So professional development is going to be school-wide where we need it and individual as we need it. But, it is a very important part of how Lori runs the school.

7. *What does success look like at your school?*

Of course, like what you just saw [human body presentation by 5th grade classes], it was a success. To me, success is student buy-in. It is when the students are willing to put forth the effort to make something happen. Student success to me is the fact the kids buy into it. The fact that they do it. When they are in here and are making the movies, it is successful when they are really taking it seriously and really putting forth an effort. When they are side-tracked and start goofing off, I am not being successful. I am merely providing a space for them to be in.

RQ2: What strategies/methods are used to foster student acquisition of the 4 C's through arts integration at this school?

8. *Does the school's philosophy of arts integration reflect collaboration? Creativity? Communication? Critical thinking? If so, how?*

Yes. That is what was so cool about it when the 4 C's and 21st century skills first came out. When you realize what we do here is 21st century because the arts by their very nature or by the way we are promoting them encourage the 4 C's. Especially when you start getting into music, theatre and movement, and visual arts. The artist is communicating something so they have to collaboratively work together on various projects. Everything in technology in here is the 4 C's. [16:45].

Fifth grade is coming in next week and there is this old simulation called "geography search" in which they are on a sailing ship which is wind-powered. They have to watch the direction of the wind. See where the sun is. It is simplistic. But, it is so powerful. Teaching them how to be observant. Again the 4 C's: they have to work together, communicate, creatively think,. It ties into forces and motion and geography. In fifth grade it is all about the New World. It's those kind of little integrations that just make a huge impact with the kids. These are the kinds of things I try to provide for the school. Of course, I've got the robotics that I do. I just finished up working with the legos with the 7th graders. Then, it went into their complex machines. They built simple machines with the legos, then complex machines out of hands-on things.

Another thing I love about the electives process because in most middle schools you got to pick two electives per semester. We actually give students the possibility of taking four. I have the elective students daily and can do so much with them. There is a K-6 schedule and a middle school schedule. Our k06 schedule is built around our electives.

9. Is there anything you would like to share about arts integration practices or 21st century skills that you haven't already shared?

It is a very deliberate process. It takes a lot of work. It takes a lot of extra time. It has to be two-way. Sometimes the biggest challenge we see from the AIT side is that there is more of a one-way street. The teachers come in, here is our content now how are you gonna make it work? So ur AIT team has been much more deliberate. So we have designed a collaborative planning form. This has been really helpful. Because they are getting idea of how can I bring the art into my classes. It helps them realize there are a lot of possibilities you can be doing in the arts in the classroom that can be artistic. This is fun. It is just a neat place to be.

Staff turnover is pretty low. The folks who have left have left for other opportunities or to be near their family.

[Interviewee took researcher on a tour of the technology lab and the materials available to students].

Appendix F
Observation Protocol

Observation Protocol

Guiding Question: What is the impact of a school-wide arts integration program on creativity, critical thinking, collaboration, and communication?

Informal observations and field notes taken will document the 4 C's and 21st century support systems. **Look For's:** How curriculum and instruction, professional development, assessment practices, standards, and learning environment reflect 21st Century skills; arts integration—the practices, programs, strategies, methods; 4 C's—the practices, programs, strategies, methods.

RQ1: *How do teachers characterize the strategies and methods used to implement a school-wide arts integration program at this school?* AIT meetings, staff meetings, decision-making, culture, community, programs and events, school and classroom walkthroughs, curriculum and instruction through lessons, professional development, posted goals, resources, assessment practices, learning environment, ...

RQ2: *How do teachers characterize the strategies and methods used to foster student acquisition of the 4 C's through arts integration at this school?* AIT meetings, staff meetings, programs and events, school and classroom walkthroughs, curriculum and instruction through lessons, professional development, posted goals, resources, assessment practices, learning environment, ...

RQ3: *How do teachers characterize the 21st century support systems alignment with the school-wide arts integration program at this school?* AIT meetings, staff meetings, culture, community, programs and events, school and classroom walkthroughs, curriculum and instruction through lessons, professional development, posted goals, resources, assessment practices, learning environment, ...

Date: _____ Time: _____

<i>Description Notes</i>	<i>Reflective Notes</i>	<i>Look Fors</i>
		curriculum and instruction
		professional development
		assessment practices
		standards
		learning environment

Appendix G
Document Review Protocol

Appendix H

Member-Checking Letter

Member-Checking Letter

Date:

Dear Participant,

Thank you so much for taking the time to participate in an interview with me. I am attaching the transcription of the interview for your review. This process of member-checking affords you an opportunity to make sure I have accurately reported the information from our interview. It will help ensure credibility and strengthen reliability by preventing mistakes and bias.

Please let me know, via email, if you believe the transcription to be an accurate or inaccurate description of our conversation. If you feel the transcription is inaccurate, please email me with any changes, suggestions, or concerns you have.

Again, thank you for your participation and time. I am grateful for your contribution toward the completion of my study.

Sincerely,

Cari A. Maneen

Appendix I
Actions and Timeline

Actions and Timeline

Timeline	Action
September 2015 October 2015 November 2015	Conduct interviews & observations Collect documents
October 2015 November 2015	Analyze data (ongoing) Conduct member checks & peer reviews Begin chapter 4
December 2015	Peer review Complete chapter 4 Complete chapter 5
February 2016	Defend

Appendix J

Peer Review Letter

December 16, 2015

Peer Reviewer: Kari Sanderson Hobbs

Title: A Case Study of Arts Integration Practices in Developing the 21st Century Skills of Critical Thinking, Creativity, Communication, and Collaboration

Cari,

I have read and reviewed the teacher responses for RQ1, RQ2, and RQ3. The teacher responses of arts integration strategies/methods were indicative of the descriptive and interpretative themes identified in your data table. I compared my own analysis of data with your themes. The themes identified represent patterns in responses. I read your Chapter 4 narrative to conclude that you reported the responses thoroughly and accurately—as well as supported the teacher responses with document data, observation data, and interview data. It is my opinion that you have provided an accurate and thorough representation of data for RQ1, RQ2, and RQ3.

Appendix K

AIT Meeting Master Schedule 2015-2016

AIT Meeting Schedule 2015-2016

	8:25-9:20	Coverage	9:25-10:20	Coverage
1st Tuesday of the Month	K	R-Hi A-T	2	A- J A- A
2nd Tuesday of the Month	1	M- T C- H	3	M- J J- C
3rd Tuesday of the Month	6	J- A L- S	5	H- C M- A
4th Tuesday of the Month	7/8	Math- R SS - H Science - S ELA – J	4	B- C V- C

AIT Meetings- Master Schedule 2015-2016

August	18	6 & 5
	25	7/8 & 4
September	1	K & 2
	8	1 & 3
	15	6 & 5
	22	7/8 & 4
	29	Possible make-up
October	6	K & 2
	13	1 & 3
	20	6 & 5
	27 (workday)	7/8 & 4
November	3	K & 2
	10	1 & 3
	17	6 & 5
	24	7/8 & 4
December	1	K & 2
	8	1 & 3
	15	6 & 5
	23 (no school)	7/8 & 4
January	4 (workday)	7/8 & 4
	5	K & 2
	12	1 & 3

	19	6 & 5
	26	7/8 & 4
February	2	K & 2
	9	1 & 3
	16	6 & 5
	23	7/8 & 4
March	1	K & 2
	8	1 & 3
	15	6 & 5
	22	7/8 & 4
April	5	K & 2
	12	1 & 3
	19	6 & 5
	26	7/8 & 4
May	3	K & 2
	10	1 & 3
	17	6 & 5
	24	7/8 & 4
	31	Possible make-up

Total Number of Meetings 2015-2016

K	9
1	9
2	9
3	9
4	10
5	10
6	10
7/8	10

Appendix L

Example of Data Reduction Process

Theme Reduction for Participant Responses for RQ1: Arts integration strategies/methods

Teacher Responses	Descriptive Themes	Interpretive Themes
<p>--co-planning time --arts integration team meetings --we send out a collaboration tool --helpful to know ahead of time --intentional --mirrored schedules --designation of time for communication and co-planning --dialogue between team teachers and the arts provides a check and balance for the program in --the arts integration team meeting is our planning time in preparation for the grade level teams --We needed to set aside time each month --These very talented people would be bringing in ideas of how they can bring their skill into my project. --I leave the meeting with an integrated unit. --Our planning meetings are really the key. --To get results like this, it takes a lot of collaboration. --I share my professional learning with others</p>	<p>Co-planning Time Intentional Scheduling Dialogue Communication Arts integration team meetings Preparation</p>	<p>Intentional Collaborative Planning</p>
<p>--We have been thinking a lot more about the process. --I am not doing integration for integration sake. --Intentional about the process --We all know if it is organic and a natural fit to integrate, but if it doesn't fit, not to force it. --We assess growth throughout the year. --I use a rubric and a narrative. I will give them a grade, and I will write a narrative based on feedback to let them know where they are. The main categories are process. --I embed assessments in the process to use as a guide to help me stay in touch with student understanding and learning. --You have to work with the students to create a rubric. They will help determine what the success is. --We talk about the process with children all the time. The process is sometimes more important than the actual performance itself. Working together to create a performance, individual drive, professionalism, are just some of the things we look for.</p>	<p>Process Growth Rubric Embedded assessments Self-assess</p>	<p>Process—not product</p>
<p>--Our leader, our boss realized the importance of scheduling. --Scheduling to provide coverage during meetings --Dedication of resources—of human resources to make it possible --The support of the school, of the administration, of the board. --Financial resources to have five full-time specialists. --[Our leader] has made sure we have time to collaborate with teachers. --[Our leader] sets up the schedule so we have lots of flex. --Having those scheduling times to make this work is a major, major factor. --We are allowed to fail. We have a culture that allows and encourages risk and allows failure. Because through failure, you learn. --Risk-taking is for the students and for the teachers. --We do encourage failure. We don't encourage complacency.</p>	<p>Scheduling Dedication of resources Support of school Support of board Support of administration Financial resources Time to collaborate Allowed to take risks and fail Autonomy in professional development High expectations</p>	<p>Leadership Support</p>

<p>--[Our leader] has been very supportive of allowing me to take advantage of professional development opportunities</p> <p>--[Our leader] makes sure that as a group we participate in PD together at least twice a year.</p> <p>--[Our leader] encourages us all to get the professional development we need and we do a Professional Development Plan every year. So, it is individualized.</p> <p>--We are very much supported. Arts integration is expected and it is encouraged.</p>		
<p>--Willingness of everyone to pitch in</p> <p>--It takes a lot of people to make it possible.</p> <p>--Major commitment</p> <p>--We all embrace challenge to help the regular classroom teacher.</p> <p>--We have changed our report cards to reflect the standards and the 21st century skills.</p> <p>--The 21st century skills are a part of the report card now.</p> <p>--Our report card is more deliberate and more informative with the standards.</p> <p>--We are fortunate enough that arts integration is pretty much our mission. It is supported with staff because they wouldn't be here if they didn't believe in the philosophy of arts integration.</p> <p>--Just the fact that everybody here will make something work. I don't think anybody ever says no.</p>	<p>Everyone Work together Commitment We have changed... Think about the future Look ahead and plan Philosophy/mission of arts integration</p>	<p>Shared Vision</p>
<p>--Arts integration makes learning more student-oriented</p> <p>--Arts integration can make a big difference depending on a students' learning style.</p> <p>--There are discussions on how we bring the different intelligences into our own areas.</p> <p>--We look at allowing all types of learners to thrive.</p> <p>--I develop rubrics and have students self-assess so that I get their perception on what the work is.</p> <p>--It is interesting to see how my assessment taps into strengths for students that I don't necessarily see them do on a worksheet.</p> <p>--We do self-assessments. We do peer assessments. We do group assessments.</p> <p>--I am encouraging them to give constant feedback and listen to each other. That is where the growth is gonna happen.</p> <p>--We set up projects that have real messages that we want to get out. We want to have students working on real problems. And to have a very loose framework to solving the problem.</p> <p>--A student may not be a traditional learner, but their confidence level goes up because, "Hey, I was able to do that dance."</p> <p>--We are trying to give the students as many different opportunities to succeed as possible, such as hands-on. If a student can be successful through writing, great. There are plenty of opportunities to write. If they are successful on the stage, and they are a struggling learner in traditional ways, but they can express themselves creatively and show what they know through performance, then they have succeeded.</p> <p>--There is not one simple way of assessing a lesson that worked because of the difference between the spectrum of students that I teach.</p>	<p>Student-oriented Students' learning styles Different intelligences Various learners Student strengths Self-assess Rubrics Feedback Growth Real problems Hands-on Projects Different opportunities</p>	<p>Multiple Learning Pathways</p>
<p>--professional development that deals with the whole staff is varied depending on our needs.</p> <p>--We are highly encouraged to seek out other professional development that is specific to what we need like our subject area</p>	<p>Professional development Shared Individualized</p>	<p>Culture of Learning</p>

<p><i>or our grade level.</i> <i>I have been trying to learn from others.</i> <i>We have half days once a month and those are used for professional development.</i> <i>Sometimes professional development has to do with the report card or computer system.</i> <i>--We use A+ and other conferences for support in the arts.</i> <i>--I went to DC for an arts professional development conference last year.</i> <i>--I am going to an upcoming Arts Council in Education conference.</i> <i>--We are really focused with bringing more professional development to our staff without us having to go outside the school and get it.</i> <i>--Those PD times are about building skills and knowledge in terms of language in the art form processes.</i> <i>--Everything costs money. We are fortunate to have a full-time grant writer.</i> <i>--Lori encourages us all to get the professional development we need and we do a Professional Development Plan every year. So, it is individualized.</i> <i>--Our staff professional development is usually based upon our school needs, such as literacy, etc. But, we also do at least one arts professional development per year. So professional development is going to be school-wide where we need it and individual as we need it. This is a very important part of how Lori runs the school.</i> <i>--We professional development mostly in the arts and in technology skills. If we switch some technology out, we have to be trained in that so we can use it with the kids.</i></p>	<p>Support Knowledge</p>	
<p><i>--Always reflective. That is one of the biggest strengths of this school. There is no body content with what they did. They are always looking to make it better.</i> <i>--After PD, we reflect as a whole group of how is this going to impact your classroom.</i> <i>--I think the reflection process after a unit to talk as an AIT team and as an AIT team with the grade level as to what worked and what didn't work. What do we want to do different next time? That led us as an arts team to redesign the planning tool that we use. Making sure we have that reflection with the students too.</i></p>	<p>always reflective no one content looking to make it better reflection process what works what didn't work do different in future redesign tool reflection with teachers and students growth</p>	<p>Reflective Practitioners</p>

Theme Reduction for Participant Responses for RQ2: Student Acquisition of the 4 C's

Collaboration

Teacher	Interview Response	Descriptive Themes	Interpretative Themes
1	I guess the one thing that I want to say is that when I am speaking to my students often about what is going to happen when you leave [arts school]? These are the, I think people say “soft skills”, and I speak really frankly, specifically to my 7 th and 8 th graders, that if you are not able to get along with people it is gonna be very difficult for you. Ya know, if you are not able to take accountability for your own work and the quality of it that’s going to be a struggle later on or that is going to be something that drives you to success. They will get a group daily grade when we get into the script writing and puppet making process. I appreciate keeping those sort of in the background the support system to the academic work.	Group grade for script writing and puppet making	Group Projects
2	I think depending on the project, it calls for either small group collaboration or whole group collaboration. I feel like a lot of what I do in here uses small groups. Rarely, very rarely, are students working on their own. If students choose to do that, I will let them. It is usually a group project that generates conversation. I think that fosters collaboration. How are they going to work together to create this piece. Here are the guidelines. You do this, I’ll do that. I am not necessarily telling them. They are taking leadership. When I think about collaboration, I think about my band, there is a lot of nonverbal communication. Are they listening to the cues, do they know when to play soft and when to play hard.	Small group Whole group Group project to create a piece Leadership Choice Create Nonverbal communication	
3	I feel like a lot of the work we do in dance is highly collaborative. In terms of warm-up and making a phrase together.	Working together to create dance phrases	
5	For years in 6 th grade when we used to teach the 20 th century we did a war crimes trial based on the Holocaust. Everybody had a part. They had to do their research and the jury heard the evidence and they had to have a consensus and all sorts of things going on. There are so many opportunities.	Working together during project	
6	The artist is communicating something so they have to collaboratively work together on various projects. Everything in technology in here is the 4 C’s. They have to work together, communicate, creatively think.	Working together on projects in technology Expression create	
7	I think there is a lot of collaboration that goes into that artwork as well that is not right on the surface. And then a lot of collaboration goes into like big art pieces, like murals and monuments. You would have to pull like so many people together to make something like that. I think in technology, in most schools, students are working on separate computers on one program and that is what others call their technology classes. They are learning to use a certain program and there is this output they are supposed to get. When you go into our technology, there are groups working together. Sometimes there are break downs in communication in	Groups working together on art-related projects Teacher-student collaboration Various age groups working together Technology	

	<p>the groups, but this is how growth and learning takes place. I think that is a huge piece here. You see a lot of teacher-student collaboration. In terms of the teachers own the final product. It is very clear that the teachers feel ownership about a play that is produced. The teachers are invested. When the students see the teachers invested, they want to be invested. That is nice because students aren't just going to collaborate with people their age group as they move on. They are going to have to collaborate with authority or people of a different age group or ability too.</p>		
8	<p>It is so much a part of what we do. The kids are creating collaboratively all the time. In dance you will see them divided into small groups and they are working on choreography. I would say the most collaboration happens in dance and drama. It is kind of a spirit of collaboration school-wide. So, even if it is not in arts class, students are working with partners. I think really what is kind of unique is the collaboration between staff and with each other and the development of projects. That collaboration doesn't just stop with teachers. We really bring out support staff into those processes. You will walk by first grade and the teaching assistants playing guitar and singing. We are tapping into the talents of our support staff and really collaborating with them as well. Technology is a part of the whole collaboration process. Technology is a part of the arts integration team. We have been real intentional about his schedule. He does not have a tech class scheduled with a certain grade level each week so that he can have more flexibility and can push-in and maybe be in third grade for 4 days in a row to complete a project. He thinks artistically and believes in the importance of creativity and the arts. He wants to be integrated into what the teachers are doing. Sometimes the technology is more science-based than creative. He is pushing more into creating video and short pieces with the kids doing the filming.</p>	<p>Small groups Creating Partners School-wide Projects Choreography Technology Videos/filming</p>	

**RQ2: 4 C's strategies/methods
Communication**

Teacher	Interview Response	Descriptive	Interpretative
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		Themes	Themes
1	We talk about what it means to have a cooperative attitude and support each other in the process of making this puppet and creating a script to go along with it. Working dynamics: What part are you going to contribute and how are you going to go about contributing that? Sometimes it means being a leader, but not always.	Cooperative attitude Support--group Being a leader Contributing	Expressing knowledge through art forms
2	Just generating conversations by comparing and contrasting and generating similarities. I am not necessarily telling them. They are taking leadership.	Comparing and contrasting together Leadership	
3	In dance, communication is in terms of expressing yourself through movement or allowing others to understand your movement choices through dance.	Non-verbal communication Choices	
4	The way to share their knowledge. They might not be a traditional learner, but their confidence level goes up because, "Hey, I was able to do that dance."	Sharing knowledge	
5	One of the grades I have in my language arts is how they are able to orally present themselves. So, that is a part of their grade. If they are accessing literature through that project I can evaluate them based on a certain criteria with that performance or with that arts integration.	Oral presentation Project Evaluate-analysis Performance	
6	In my class students are talking about what they are doing and the process they are going through. If you have a group project, you've got to talk to each other or you end up getting nowhere. Sometimes it means being the leader.	Group projects leader	
7	That is what was so cool about it when the 4 C's and 21st century skills first came out. When you realize what we do here is 21st century because the arts by their very nature or by the way we are promoting them encourage the 4 C's. Especially when you start getting into music, theatre and movement, and visual arts. The artist is communicating something so they have to collaboratively work together on various projects. Everything in technology in here is the 4 C's.	Working together The artist communicates through the piece Technology	
8	All those processes [the 4 C's] we just talked about. You can't work creatively and collaboratively without communicating with each other. You really have to build communication skills during that collaborative process. But, just putting students on stage really helps with the communication skills. Then, non-verbal communication like communicating through music, our bodies, dance, visual are really happening all the time.	Non-verbal communication through dance, bodies, visual	

RQ2: 4 C's strategies/methods
Creativity

Teacher	Interview Response	Descriptive	Interpretative
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		Themes	Themes
1	It is hard for me to separate them. From my perspective, the process of developing a theatre arts piece, all of the 4 C's are integral to the success of a theatre arts project. I talk to my students about it all the time. If you look at that evaluation rubric, like cooperative attitude, working dynamics, individual contribution, and leadership quality.	Cooperative attitude, working dynamics, individual contribution Leadership	Student Choice
2	Working together to create a performance, individual drive, professionalism, are just some of the things we look for. Also, the coming together of the academic subjects and the arts are able to help children master or learn new things in that way.	Working together Individual drive Professionalism	
3	I think if you think about the process within arts integration, there has to be some kind of synthesis to the learning experience where those are brought together. How do you use parts of it together in a new way for the student. And metacognitively too. How are they connecting it to the world around them. That's a big creative application. I always use Bloom's for a planning tool for myself.	Synthesis Real-world connection Bloom's Taxonomy	
4	I was also big on critique sessions too. Kids are looking at other people's work and saying, "Well, I would have done it this way." And that's their creative process. Then, if the child has an opportunity to change the way of doing something, then why are they choosing not to or too and there is creativity in that process as well.	Critique Choosing how to improve art piece	
5	You have to have the critical and creative thinking skills to create something.		
6	I think the very process of creating art is very critical in the choice you are going to make to move your art form and your message forward.	Choice to move art form forward	
7	Valuing the process by measuring the creativity is as a teacher you are able to accept a variety of different ways of coming to an answer. Students have choice to be creative. So there is something that is valued about the creative way of getting to the product. This is what you are trying to express and these are the restrictions that you have but really getting from here to there is really the most interesting part. And they are free to do that. We don't tell them exactly how. But, certain students need more scaffolding than others to get there. But, in theatre for example, you have six lines to create a plan. The play has to be about this. What you do in between there is truly creative. That is the students saying we will make you an ant, you a bee, and you a flower. How you achieve that is the creative piece. What there's not a lot of creativity is in worksheets. There is not a lot of creativity in answering questions that have a definite right answer.	Choice to be creative Free to express Creativity is valued	
8	Doing the art, solving the problem. In all of the arts classes they are creating. Even from an early age, they are creating small songs or small plays. My daughter is in the third grade here right now and they are writing a play based on a folktale. This is constant through all of	Engaged in the arts Creating songs, plays, dances, monologues, performances,	

	the grades. This process is pretty equitable in all of the arts. They are creating dances. They are creating monologues and performances and drama. They are creating visually in art obviously. They are also writing music and composing. This happens in the classrooms and in the arts classrooms. I feel like for us, creativity is just a natural part of being engaged in the arts.	composing music Student expression and choice	
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RQ2: 4 C's strategies/methods

Critical Thinking

Teacher	Interview Response	Descriptive Themes	Interpretative Themes
1	I think the arts integration team and all of the classroom teachers all use self-evaluation tool. They are evaluating what they learned and how they can apply that to the future also. Critical thinking is how we develop a script.	self-evaluation evaluating own learning develop a script	Analysis of own work and others work
2	I do critical thinking in my stations which is also their reward. Critical thinking that is my analysis with the listening station. Students identify what they heard, how they feel about, if they can what they would change about it. At the station the students can select a CD and fill out a critical thinking worksheet. What did you like? What did you hear? What is the title of the song? What would you change it to and why?	analysis of listening station	
3	The lesson planning as well. The implementation of the lesson. Like stepping though Bloom's Taxonomy and the process of the lesson.	Bloom's Taxonomy	
4	I used rubrics a lot with my students. Having the students go back after the creative process and evaluating them with the rubric by stating, 'Now what would you give yourself on this and why and what would you do to improve your grade?' I love critiques.	self-evaluating rubrics critiques	
5	Critical thinking comes through in the analysis of works of art. Students analyze performances. There is a lot of critical thinking. I know the 7 th grade teacher recently did a trial. For years in 6 th grade when we used to teach the 20 th century we did a war crimes trial based on the Holocaust. Everybody had a part. They had to do their research and the jury heard the evidence and they had to have a consensus and all sorts of things going on. There are so many opportunities.	analysis of works of art analyze performances	
6	Last week the 6 th grade drama teacher had some of the 3 rd graders who can't see it, the next time she met with them they she had them analyze the performance. I try in my Social Studies to do some role play. We have a medieval fair coming up. There will be some performance aspects of it. There will be some song and dance and theatre. But, they are also being a person in that society. So, people are going to be asking them questions about their lives and they have to use that critical thinking to bring their research and history notes	analyze performances role play choices	

	<p>to life through their character. There is a lot of critical thinking. In technology when we are doing any of the media video the critical thinking is in the very choices. What color am I going to use? What is the backdrop? What is my storyline? What do I do first? What do I do last? The very choices they are having to critically think. Does this enable my story or detract from my story.</p>		
7	<p>I think they are two parts to the same coin of that creative process. There is that piece of looking at the rubric after you create something. If I don't meet the criteria or restrictions for the rubric, I need to recreate and adjust so I create again. So, they are feeding on each other.</p>	<p>rubric for self-evaluating rubric to recreate and adjust</p>	
8	<p>Our kids are analyzing a lot. They are analyzing dance, music, visual art. In theatre they critique each other in plays like they see. So, even for other grade levels. If they watch a play often that teacher will process it with the class. That is for the critical analysis piece and the content. Like if you took your third grade class to the 5th grade body systems play you are going to talk about the play and analyze it because you are teaching body systems too.</p> <p>A lot of our teachers have critical thinking stations or seminars like Padeia seminars are used. In second grade, it is a normal weekly rotation during their lit block. They are always analyzing a piece of art. In music they are doing it as well, in dance too. They are looking at other pieces and analyzing. Critical thinking comes in too when you are creating. To be able to complete a creative task you have to think critically about what the teacher is asking you to do, with the information you are working with and things like that.</p>	<p>analyzing dance, music, and visual art critique each other stations and seminars creating</p>	

Appendix M

21st Century Skills Assessed on Arts School Report Card

21st Century Skills
Revised 9.3.15

21st Century Skills
Student communicates clearly
Student knows when it's appropriate to speak and when it's appropriate to listen
Student thinks creatively
Student works creatively with others
Student is able to reason effectively and make effective decisions and judgments
Student solves problems
Student adapts to change and is flexible
Student is able to set goals and manage time and projects effectively
Student can produce results
Student works independently and is self-directed
Student is able to collaborate with others and work effectively in diverse teams
Student acts responsibly with the interest of the larger community in mind
Student demonstrates compassion and willingness to serve others
Student demonstrates leadership skills
Student conducts himself/herself in a respectful manner