

Fall 12-15-2018

Blended Learning in Middle School Art: A Qualitative Case Study

Michele Mars

Concordia University - Portland, msmars1208@yahoo.com

Follow this and additional works at: https://digitalcommons.csp.edu/cup_commons_grad_edd



Part of the [Education Commons](#)

Recommended Citation

Mars, M. (2018). *Blended Learning in Middle School Art: A Qualitative Case Study* (Thesis, Concordia University, St. Paul). Retrieved from https://digitalcommons.csp.edu/cup_commons_grad_edd/245

This Dissertation is brought to you for free and open access by the Concordia University Portland Graduate Research at DigitalCommons@CSP. It has been accepted for inclusion in CUP Ed.D. Dissertations by an authorized administrator of DigitalCommons@CSP. For more information, please contact digitalcommons@csp.edu.

Fall 12-15-2018

Blended Learning in Middle School Art: A Qualitative Case Study

Michele Mars

Concordia University - Portland

Follow this and additional works at: <https://commons.cu-portland.edu/edudissertations>



Part of the [Education Commons](#)

CU Commons Citation

Mars, Michele, "Blended Learning in Middle School Art: A Qualitative Case Study" (2018). *Ed.D. Dissertations*. 188.
<https://commons.cu-portland.edu/edudissertations/188>

This Open Access Dissertation is brought to you for free and open access by the Graduate Theses & Dissertations at CU Commons. It has been accepted for inclusion in Ed.D. Dissertations by an authorized administrator of CU Commons. For more information, please contact libraryadmin@cu-portland.edu.

Concordia University–Portland

College of Education

Doctorate of Education Program

WE, THE UNDERSIGNED MEMBERS OF THE DISSERTATION COMMITTEE
CERTIFY THAT WE HAVE READ AND APPROVE THE DISSERTATION OF

Michele Renee Mars

CANDIDATE FOR THE DEGREE OF DOCTOR OF EDUCATION

Audrey Rabas, Ph.D., Faculty Chair Dissertation Committee

Meghan Cavalier, Ed.D, Content Specialist

Kallie Dace, Ed.D., Content Reader

Blended Learning in Middle School Art:
A Qualitative Case Study

Michele Renee Mars
Concordia University–Portland
College of Education

Dissertation submitted to the Faculty of the College of Education
in partial fulfillment of the requirements for the degree of
Doctor of Education in Higher Education

Audrey Rabas, Ph.D., Faculty Chair Dissertation Committee

Meghan Cavalier, Ed.D. Content Specialist

Kallie Dace, Ed.D. Content Reader

Concordia University–Portland

2018

Abstract

The purpose of this exploratory qualitative case study was to explore the actions of one middle school art teacher implementing blended learning methods in an eighth grade art class to understand what effect the art teacher perceives blended learning has on eighth grade middle school art students' engagement in the subject matter. Mezirow's Transformational Theory was the framework that guided the study. The study was conducted in a rural middle school located in the Midwest region of the United States over a nine-week period focusing on one middle school art teacher and an eighth grade art class using blended learning strategies. Data was collected through observations, interviews, and document analysis and then coded based on themes relating to the three research questions. The first research question considered art classroom norms, routines, and classroom expectations and whether they were used to support the implementation of blended learning strategies. The second question focused on the National Core Arts Standards connecting to the blended learning instructional material. The final research question examined student-centered instructional strategies implemented to engage students individually in a blended learning environment. The data was triangulated to assure accuracy in the results, which found that blended learning was perceived by the art teacher in the study to support student engagement in the subject matter. The art teacher perceived increased student interaction with the blended learning resources provided in the Schoology learning management system (LMS). Further possible research could include a study regarding art teachers' perceptions in middle school art classes using blended learning to compare the results from a larger sample size.

Keywords: art, blended learning, engagement, learning management system (LMS), middle school, personalized learning, student-centered learning.

Dedication

This dissertation is dedicated to my daughter and my son. Thank you for letting me be your mother, accepting me for who I am unconditionally, and supporting me through this process. Never give up on your dreams.

Acknowledgements

I would like to acknowledge my family and friends for their unwavering support through this process. Their understanding of my time commitments to achieve my doctorate and kind words did not go unnoticed. I also want to thank all my teachers along the way. You have inspired me more than you will ever know. Special thanks to Dr. Audrey Rabas, Dr. Deborah Gilbert, Dr. Meghan Cavalier, and Dr. Kallie Dace for spending countless hours reading through my work and helping me to become a better researcher, writer, and thinker. Special thanks go to my dad in heaven for giving me a laid-back personality, which allows me to not sweat the small stuff. Thanks to my mom, for giving me my smart mouth and witty attitude. They have both protected me in times of vulnerability. My amazing brother and sister, the friendship we have developed as adults means the world to me. My Aunt Renee, thank you for being my second mom and sharing your love of fur babies and dedication for taking care of others. Finally, I am most thankful for my children, Tenaya and Jaidyn. My life has value because of your existence. I will forever be proud of the people you are and the difference you make in the world. The world is a better place because you exist!

Table of Contents

Abstract	ii
Dedication	iii
Acknowledgements	iv
List of Tables	viii
Chapter 1: Introduction	1
Introduction to the Problem	3
Background, Context, History, and Conceptual Framework for the Problem	3
Statement of the Problem	4
Purpose of the Study	4
Research Questions	5
Rationale, Relevance, and Significance of the Study	6
Definition of Terms	7
Assumptions, Delimitations and Limitations	10
Chapter 1 Summary	11
Chapter 2: Literature Review	13
Introduction to the Literature Review	13
Conceptual Framework	16
Review of Research Literature and Methodological Literature	19
Review of Methodological Issues	34
Synthesis of Research Findings	38
Critique of Previous Research	40
Chapter 2 Summary	41

Chapter 3: Methodology	43
Introduction to Chapter 3	43
Research Questions	44
Purpose and Design of the Study	45
Research Population and Sampling Method	47
Instrumentation	49
Data Collection	51
Identification of Attributes.....	53
Data Analysis Procedures	54
Limitations of the Research Design.....	56
Validation.....	58
Expected Findings.....	59
Ethical Issues	61
Chapter 3 Summary	63
Chapter 4: Data Analysis and Results.....	65
Introduction.....	65
Description of the Sample.....	66
Research Methodology and Analysis.....	74
Summary of the Findings.....	75
Presentation of the Data and Results	79
Chapter 4 Summary	90
Chapter 5: Discussion and Conclusion	91
Introduction.....	91

Summary of Results	92
Discussion of Results	93
Discussion of Results in Relation to the Literature	95
Limitations	103
Implications of the Results for Practice, Policy, and Theory	105
Recommendations for Further Research.....	108
Conclusion	112
References.....	114
Appendix A: Artifact	128
Appendix B: Site Authorization.....	132
Appendix C: Interview Questions.....	133
Appendix D: Informed Consent Form	134
Appendix E: Interview Protocol	136
Appendix F: Statement of Original Work.....	137

List of Tables

Table 1 <i>Number of Students in Attendance for Each Observation</i>	70
Table 2 <i>Norms, Routines, and Classroom Expectations in a Middle School Art Room Using Blended Learning</i>	76

Chapter 1: Introduction

Education has been impacted by technology in many ways such as flipped classrooms, blended learning, adaptive learning, and learning management systems (LMS). Specific to art, technology has influenced the way lessons are presented by art teachers and the way students learn. In a survey conducted by Deloitte (2018), it was reported that students wanted to have access to learning outside of the classroom on their phone, tablet, or laptop. Louwrens and Hartnett (2015) discussed ways to help students learn working across content areas and grade levels, piloting new approaches to teaching. Dixson (2015) stated that teachers used data to match content to students in order to facilitate personalized learning environments. Core classes such as math and reading have regularly utilized blended learning in the curriculum as mentioned by Longo (2016). Art has been considered a hands-on, project-based class and many art teachers do not fully utilize blended learning methods to assist in delivering curriculum to students (Townes, 2016). This research study focused on how a middle school art teacher used blended learning in an eighth grade art class and her perception of the engagement of the students in the blended learning class. The art teacher in the study implemented a blended learning environment using the Schoology LMS. Students that used the blended environment were able to make choices as they completed the assignments in art class. The blended learning environment offered art students an opportunity to interact with the learning materials at school or home using technology such as a computer or tablet.

Middle school art teachers have often utilized the opportunity to create blended learning environments in the classroom using an LMS. The survey conducted by Global State of Digital Learning in K12 Education (2017) reported just over 45% of school districts used an LMS. The LMS were available in numerous schools acting as a host to deliver material to students,

administer tests, quizzes, and other assignments, track student progress, and manage record-keeping. The LMS often provide discussion options, ways to insert videos, images, and links to other websites. Examples of LMS available for teachers to use in the classroom during the research were Schoology, Blackboard, Moodle, and Infinite Campus. The LMS available all had similar features for teachers to use in the classroom.

The National Core Arts Standards (NCAS, 2016) were adopted by school districts as a tool to identify the learning objectives at specific grade levels for art teachers and to drive improvement in the system that delivers learning objectives to the students. The NCAS (2016) supported the use of technology in art. According to the NCAS (2016), eighth grade standards recommend that a student be able to demonstrate awareness of practices, issues, and ethics of appropriation, fair use, copyright, opens source, and creative commons as they apply to creating works of art and design. A Schoology LMS could provide a location for students to learn about the technology related recommendations suggested by the NCAS (2016). Eighth grade students were expected to be innovative, collaborative, reflective, and investigative with art experiences (NCAS, 2016). Placing information into the Schoology LMS could meet each of these expectations. Garrison and Vaughan (2008) discussed ways in-person teaching and online learning present in the blended learning approach build off each other, giving students more access to rigorous content and a variety of opportunities to demonstrate their learning. Using a blended learning approach in the art room allowed art teachers to provide each individual student with opportunities for a rigorous personalized learning environment, while meeting the NCAS (2016) for the grade level.

Introduction to the Problem

Research studies have been completed in other subject areas in K-12 education determining if a relationship exists between blended learning and student engagement (Kliger & Pfeiffer, 2011; Vaughan, 2014) and regarding blended learning and engagement in general (Mazur, Brown, & Jacobsen, 2015). During the review of the literature, it was evident to the researcher that there was a lack of research available about blended learning and engagement in art class. The lack of research on this topic could present a problem for art teachers. According to Rahmawati (2008), educational research is important because it contributes to knowledge development, practical improvement, and policy information. Rahmawati (2008) discussed how educators used research findings to improve their competence in the teaching and learning process. According to Rahmawati (2008), it was necessary for art teachers to have research to refer to explaining the advantages or disadvantages of implementing blended learning for students. Given the lack of research, art teachers needed informative resources on strategic ways to deliver blended learning instruction. Trends relating to technology and flipping classrooms in middle schools contributed to many art teachers using learning management systems (LMS) in traditional classes. Findings in previous studies suggested that teachers implementing blended learning into the instructional practice could be capable of improving student engagement in the class (Louwrens & Hartnett, 2015).

Background, Context, History, and Conceptual Framework for the Problem

The current research emphasized blended learning in other content areas in middle school settings describing support for blended learning as a means for increasing engagement. A study by Dolezal, Welsh, Pressley, and Vincent (2003) researched nine third-grade teachers in Catholic schools to determine how teachers motivated students. Dolezal et al. (2003) discovered that

engagement varied amongst the nine teacher's instructional methods and the two classrooms that were most engaged had teachers whose curriculum was "content interesting, appropriately challenging, and gamelike" (p. 240). Unfortunately, none of the findings in the study by Dolezal et al. (2003) were based on the connection specifically between blended learning in art class and engagement. This study focused specifically on blended learning and engagement in art class as perceived by a middle school art teacher.

Statement of the Problem

The main objective of the researcher supported previous research by Lemley, Schumacher, and Vesey (2014) who found that classroom norms, routines, and expectations support implementation of blended learning methods and have an increase on perceived student engagement. As more art teachers engage in the implementation of blended learning, they are often referred to research studies for more information on the strategies being explored in the classroom. Student demographics, levels of technology available, and art teacher knowledge made all art classrooms at the time of this study unique. This research explored possibilities for art teachers of middle school art students regarding blended learning relating to the NCAS (2016) and student engagement in art class curriculum using a blended learning format.

Purpose of the Study

The purpose of this qualitative case study was to explore the actions of a middle school art teacher that implemented blended learning methods into an eighth grade art class, studying the art teacher perceived effects that blended learning had on eighth grade middle school art student's engagement in the subject matter. The art teacher in this study was consistently working to meet the needs of all students in the classroom. To achieve this, the art teacher looked for new strategies, gained exposure to new technology, and searched for new research to find

what worked best for students. The art teacher was continuously integrating, assessing, and adapting the content to meet the needs of students in the art classroom. The blended learning model was an option to meet the needs of students that were attracted to learning using a technology device such as a laptop or tablet. According to Zainuddin and Halili (2016), classrooms that used a flipped model had a positive impact on student achievement and motivation. Flipped models were like blended models in that they utilized technology on a device to deliver instruction. The middle school art teacher in this study created a blended learning environment to try to support engagement of students interested in technology combined with traditional methods of delivering the art curriculum.

Research Questions

The research questions addressed in this qualitative exploratory case study focused on how blended learning strategies engaged eighth grade art students in the areas of imagination, investigation, construction, and reflection as discussed in the NCAS (2016). A qualitative exploratory case study was used to observe an art teacher during an eighth grade art class. The art teacher used blended learning strategies for six years. After the classroom observations, interviews provided a deeper understanding of the intended purpose of the blended learning strategies and the relation to the NCAS (2016). Documents used in the lessons were collected to assess the connection to NCAS (2016) and blended learning strategies. The following three questions helped to guide the case study:

1. How are art classroom norms, routines, and classroom expectations impacted by the implementation of blended learning strategies?
2. How are the NCAS (2016) focused on in the blended learning instructional material?

3. How are student-centered instructional strategies implemented to engage students individually in a blended learning environment?

Research question one explored expectations in the learning environment that support a blended learning model in an eighth grade art class. Research question two focused on exploring the NCAS (2016) used in the selected blended learning model. Research question three reflected the role of the art teacher in relation to the process of increasing student engagement in a blended learning environment.

Rationale, Relevance, and Significance of the Study

Mezirow's (1991, 1997, 2000, 2003) Transformative Learning Theory discussed the importance of autonomous thinking. Thinking autonomously was important for the middle school art teacher in this study while making meaningful changes to the learning process for the eighth grade art students. The middle school art teacher worked consistently to teach students about the importance of art. The art teacher delivered art concepts to students in many formats. Mezirow (1991, 1997) discussed the awareness of limitations and recognizing the way in which personal limitations were influenced by culture and biography and how people were provided the ability to think autonomously in transformational learning theory. Thinking autonomously in the role of an art educator was essential for reflective, long-term personal learning and to make meaningful changes in the learning processes for students in the eighth grade art class. Mezirow (1991) developed phases of transformational learning, which were essential for personal recognition and reflection on education practice. An art educator transforming an art classroom from traditional delivery methods to blended learning methods could utilize Mezirow's (1991, 1997, 2000, 2003) Transformative Learning Theory.

According to Mezirow (1997), art could lead to self-reflection, which in turn could lead to significant personal transformations for the educator, as well as students, in the art class.

Mezirow (2000) discussed that learning occurred in one of four ways: through elaboration of existing frames of reference, learning through new frames of reference, transformation of a point of view, or through the transformation of the habits of the mind. Transformative learning could be achieved through art education methods in the four ways established by Mezirow (2000).

Mezirow (1991) also discussed that meaning was an interpretation. According to Mezirow (1991), when adults and students learned, they used predetermined meaning to help understand an experience and develop their own interpretations. Art is often referred to as an experience. Through implementation of blended learning using Mezirow's (1991, 1997, 2000, 2003) Transformative Learning Theory as a guide, it is possible that art could become an enhanced and rigorous experience for the educator and the students.

Definition of Terms

Blended learning. Staker and Horn (2012) defined blended learning as “a formal education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and/or pace and at least in part at a supervised brick-and-mortar location away from home” (p. 4). Staker and Horn (2012) discussed a common feature of blended learning was when a course took place partly online and partly through traditional face-to-face in class learning. According to Staker and Horn (2012), the various learning methods employed by both online and face-to-face learning were usually connected. The information the students learned online supported what they learned through the face-to-face delivery. If the students were working in class on a project on abstract art, the information provided in the online learning environment was also on the topic of abstract

art, such as the history of the abstract art, vocabulary, and examples of abstract artist's work. Staker and Horn (2012) suggested that if students have control over the pace of their learning, the control will extend to the entire lesson that is blended, not only the online-learning part of the lesson. This control of the pace could, as suggested by Staker and Horn (2012), increase the rigor and engagement of student learning.

Student engagement. The Glossary of Education Reform (n.d.) defined student engagement as “the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education” (para 1). Student engagement was explained in The Glossary of Education Reform (n.d.) as a belief that when students are inquisitive or inspired, their learning improves. In contrast to this, The Glossary of Education Reform (n.d.) explained that students that are bored or disinterested in the learning material are not engaged in their learning and evidence of learning decreases. The Glossary of Education Reform (n.d.) also noted that “educators may hold different views on student engagement, and it may be defined or interpreted differently from place to place” (para 4). An example of this stated that one school might observe behaviors like “attending class, listening attentively, participating in discussions, turning in work on time, and following rules and directions” as examples of engagement, while another school might be explained as “internal states such as enthusiasm, curiosity, optimism, motivation, or interest” (para 4).

Learning management system (LMS). Watson and Watson (2006) defined a learning management system (LMS) as a framework capable of handling all aspects of learning. Mtebe (2015) discussed how “web-based LMS are intended to support teaching and learning activities” (p. 53). Mtebe (2015) claimed that an LMS consisted of various features that enabled teachers to

share learning materials, as well as provided interaction with their students both synchronously and asynchronously. Some commonly used LMS are Moodle, Blackboard, and Schoology.

Personalized learning. The Glossary of Education Reform (n.d.) defined personalized learning as “a diverse variety of educational programs, learning experiences, instructional approaches, and academic-support strategies that are intended to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students” (para 1).

Personalized learning was explained in The Glossary of Education Reform (n.d.) as a system of providing alternative methods of instruction to students. A goal of personalized learning was to make individual learning needs the primary consideration in important educational and instructional decisions, rather than what might be preferred, more convenient, or logistically easier for teachers and schools (Personalized learning, n.d.). Online learning programs often emphasize the focus on personalized learning for students (Personalized learning, n.d.).

Schoology. Seattle Public Schools (2018) defined Schoology as a learning management system (LMS) that changed the way teachers communicate with students and families online. Seattle Public Schools (2018) listed the following as features of the Schoology LMS: “Teachers may post assignments, messages and calendar items. Schoology allows students and teachers to engage in two-way conversations and class discussions. Teachers can easily share files and links with students, families and fellow teachers” (Seattle Public Schools, 2018, para 1).

Student-centered learning. The International Society for Technology in Education (ISTE, 2018) defined student-centered learning as happening when “planning, teaching and assessment centers around the needs and abilities of students” (para 1). ISTE (2018) explained that when students are provided with student-centered learning strategies, students move from

passive participants in the learning to active participants. Instruction is structured using student-centered learning to meet individual student's needs (ISTE, 2018).

Assumptions, Delimitations and Limitations

Creswell (2013) discussed the broad assumptions that exist in qualitative research that require an interpretive lens for research. Creswell (2013) described the philosophical assumptions in methodology as emerging while understanding the research problem. These assumptions represent a stance that the researcher has when they begin the qualitative research (Creswell, 2013). According to Creswell (2013), "The research design process in qualitative research begins with philosophical assumptions that the inquirers make in deciding to undertake a qualitative study" (p. 15). The primary assumption in this qualitative case study involved the participating art teacher. It was assumed that the participating art teacher was interested in implementing blended learning into the middle school art class to increase engagement of the students. It was assumed that the art teacher would be knowledgeable on art curriculum. It was assumed that the art teacher would have knowledge of the impact of technology in the student's lives and the impact this also has on education. It was expected that the art teacher was willing and excited to participate in the case study. It was also assumed that the participating art teacher would have an interest in discussing the instructional practice involved in incorporating blended learning into the art class.

According to Creswell (2013), delimitations define and narrow the scope of the qualitative research study. Implementation of delimitations helped to center this study and provided limits for data collection. The most significant delimitation in this study was the focus on a single subject and participant. Other art teachers might have been available to complete the study, but one art teacher was focused on for this study due to their individual pursuit of eighth

grade improvement in engagement of the subject matter through the blended learning environment. The art teacher participant used common instructional strategies that were seen in other blended learning studies for the study. The art teacher's blended learning strategies used would be easily related to by art teachers in similar middle school learning environments.

Limitations exist in qualitative case study research (Creswell, 2013). A limitation of the study was the sensitivity and integrity of the researcher. According to Stake (2005), the researcher is the primary data collector and analyzer in case study research, which could be a disadvantage. The researcher needed to rely heavily on perceptions when conducting the case study research. This researcher was cautious of allowing pre-determined perceptions in the research to mislead the study by utilizing careful analysis of the data collected through triangulation. Another limitation of the study existed with the volume of data collected. The amount of data collected led to time consuming analysis. Also, the mere presence of the researcher in this qualitative case study during data collections could affect the subject's responses in the interviews and observations.

Chapter 1 Summary

A qualitative exploratory case study research design was selected to allow this researcher to study student engagement from an art teacher's perspective through actions, the intended purpose, and reflection on the outcomes of implementing blended learning methods in an eighth grade art class. A qualitative exploratory case study, according to Yin (2003), allows the researcher to explore individuals or organizations, simple through complex interventions, relationships, communities, or programs. This study could have value to the participant that is searching for new methods to increase engagement. The study also could have value for the

students that might gain interest in the subject matter due to the teacher's work to increase engagement.

Researching the work an art teacher completed to include additional strategies and resources into the eighth grade art class through blended learning could benefit students and could encourage and inspire more art teachers to continue this path. A variety of audiences, such as teachers, parents, and school administrators could find potential value in this study due to the significance for education and blended learning in general, as well as specific to the art education realm. Patten and Newhart (2018) discussed the significance of research gaps. Based on a review of the literature, a research gap existed in the area of blended learning in middle school art (Patten & Newhart, 2018). This research study would be a significant attempt to address the gap on the topic of blended learning and engagement in middle school art.

The purpose of the qualitative case study was to explore the actions of one middle school art teacher implementing blended learning methods into an eighth grade art class to examine what effect the art teacher perceived blended learning to have on the eighth grade art student's engagement in the subject matter. Chapter 1 explained the background of the problem as the lack of research on blended learning in middle school art. Three research questions were identified in Chapter 1 and key phrases were defined. Chapter 1 also explained that the study was based on exploratory analysis related to blended learning strategies and student engagement used by the participating art teacher. It was assumed by the researcher that art teachers considering implementing a blended learning approach into their middle school classroom could benefit from this study. Using a blended learning approach in the art room was one method art teachers could provide individual students with opportunities for a rigorous personalized learning environment, while meeting the NCAS (2016) for any grade level.

Chapter 2: Literature Review

Introduction to the Literature Review

Many art teachers in the 20th century focused their teaching strategies around live, face-to-face demonstrations of project techniques, lectures, and textbooks to teach art students about art criticism, aesthetics, art production, and art history (Brandt, 1987). In contrast to the 20th century art teacher, the 21st century art teachers have been using a variety of technological strategies available to deliver art curriculum to students. Some examples of these strategies have included the LMS such as Schoology, Moodle, or Blackboard. Other technology related learning techniques implemented in the art classroom in the 21st century were internet links, YouTube videos and virtual museum tours as discussed in Zainuddin and Halili (2016). As changes continue to be made in the art classroom with the availability of increasing technology and online options to assist in the learning process, it could be important for art teachers to consider Dewey's (1944) statement, "If we teach today as we taught yesterday, we rob our children of tomorrow" (p. 167). Change could be necessary for teachers to meet the needs of the "children of tomorrow" (Dewey, 1944, p. 167). Teachers cannot teach the students of the 21st century the same way that they were taught in the past. Student's technology knowledge should be considered by teachers to support student employability in the work force.

Blended learning was a way for art teachers to utilize the technology opportunities available and increase student engagement (Louwrens & Hartnett, 2015). Blended learning created a more personalized approach for students to obtain information and learn (Dixon, 2015). The Glossary of Education Reform (n.d.) explained that in blended learning classes students receive instruction in a traditional classroom setting while simultaneously completing portions of the class independently outside of the traditional classroom. Blended learning,

effectively implemented, also fulfilled the needs of the 21st century learner (Barbour, Clark, DeBruler, & Bruno, 2016). Rich (2010) discussed that the 21st century learner was learning in a global classroom that expanded far beyond the walls of the classroom. Dewey (1944) argued that “meaningful and educationally worthwhile knowledge is a process of continuous and collaborative reconstruction of experience” (p. 11). This qualitative case study research explored the impact of middle school art teachers delivering blended learning strategies with a goal of increasing the art teacher’s perceived student engagement in the learning experience.

The key ideas and important aspects of this study were blended learning, learning management systems (LMS), differentiated instruction, engagement, and 21st century learning strategies. Blended learning goes further than just utilizing technology. A blended learning environment, as discussed by Longo (2016), provided a personalized learning experience for students based on individual inquiry. Another important part of this study was the learning management system (LMS). The LMS was referred to as a holistic way for blended learning to be organized in a school district (Stone, 2008). Differentiated instruction was another key idea achieved through personalized learning in a blended learning approach (Longo, 2016). Students that were part of a blended learning approach received instruction that could be tailored to meet their personal learning goals. Engagement of art students in the material was an important aspect of a blended learning approach. Zainuddin and Halili (2016) examined student’s increased engagement when a classroom was flipped. Zainuddin and Halili (2016) reported that engagement is an important element in a 21st century classroom. A 21st century classroom is another key aspect of blended learning. According to Rich (2010), collaboration, digital literacy, critical thinking, and problem-solving are necessary skills to help students thrive in today's

world. An art classroom that used 21st century learning strategies was supporting these necessary competencies.

It was possible that a problem existed in middle school art classes not using 21st century blended learning strategies to teach students about art. Students in classrooms that were not using 21st century blending learning strategies, according to Hassana and Woodcock (2014), could have decreased information technology (IT) and computer literacy skills. Critical thinking and problem solving, creativity and innovation, and communication and collaboration combined with computer literacy skills were necessary 21st century learning strategies for students (The Partnership for 21st Century Learning, 2015; Hassana & Woodcock, 2014).

An exploratory qualitative case study on the relationship between an art teacher's perception of student engagement and the use of a blended learning environment in art was a potential predictor of the blended learning effectiveness mentioned by Kintu, Zhu, and Kagambe (2017). Proof of increased engagement addressed the importance of implementing blended learning into middle school art classes. Research existed on engagement related to online learning in middle school, but not specific to blended learning in a middle school art classroom. Clarification on this subject was researched to help art teachers make decisions about the way art education is delivered to students. The review of the literature by the researcher examined the research that has been conducted on the key ideas in blended learning and organized the research into similar categories. This method of organization supported the identification of a gap in the research and addressed the importance of continued research on the topic (Patten & Newhart, 2018).

Conceptual Framework

A conceptual framework was defined by Ravitch and Riggan (2012) as, “An argument about why the topic one wishes to study matters, and why the means to study it are appropriate and rigorous” (p.3). The conceptual framework should be regarded as the substance of the research and be evident in all aspects of the study. The importance of 21st century learning, foundational theories on the importance of art, and the theory guiding the transformation of education practice collectively supplied a framework for this exploratory qualitative case study.

The importance of 21st century learning. Emphasis on 21st century skills for teaching and learning are part of the Common Core State Standards (CCSS) guidelines to achieve student success (The Partnership for 21st Century Learning, 2015). The Partnership for 21st Century Learning (2015) discussed the implementation of 21st century skills into the middle school art classroom through blended learning focused on critical thinking and problem solving, creativity and innovation, and communication and collaboration. Critical thinking and problem-solving skills provided students with the ability to use inductive and deductive reasoning when necessary (The Partnership for 21st Century Learning, 2015). Creativity and innovation skills supplied students with ways to develop ideas that used new approaches or technology (The Partnership for 21st Century Learning, 2015). The Partnership for 21st Century Learning (2015) commented that communication and collaboration skills contributed ways to articulate ideas and work effectively with others. Blended learning combined with the areas of focus mentioned by The Partnership for 21st Century Learning (2015) furnished students with skills that enriched the art classroom learning experience.

Lu, Bridges, and Hmelo-Silver (2014) discussed the shift in pedagogy in education to dynamic problem-based and inquiry-based learning. Lu et al. (2014) claimed this shift supported

students developing 21st century skills. Kong et al. (2014) suggested that education stakeholders consider working towards students developing 21st century skills that will help support bridging a gap that exists between school and society based on available technology used in business and education settings. Using available technology and supporting 21st century skills can improve student learning (Kong et al., 2014; Lu et al., 2014).

Foundational theories on the importance of art. Art has played an important role in transformative learning. Dewey (1944) shared the idea that emotions considerably influence the way people learn. Dewey (1944) discussed that artists have the power to change emotions through their visions. Adler and Gorman (1952) discussed that art, like science and moral action, was developed in the mind and involved processes that include experience, learning, imagination, and thought. Many great philosophers such as Aristotle, Bacon, and Freud had opinions on the meaning of art. Aristotle defined art as the “capacity to make, involving a true course of reasoning” (Adler & Gorman, 1952, p. 65). Bacon discussed how art was interwoven with science claiming, “art is the whole fruit of science” (Adler & Gorman, 1952, p. 67). Freud claimed art developed in the subconscious and connected to the inner suppressed self (Adler & Gorman, 1952). From these combined foundational theorist’s viewpoints, art collectively has the power to transform learning through an appreciation of the role played in education and society.

Theory guiding transforming education practice. Mezirow (1991, 1997) discussed the awareness of limitations and recognizing the way in which personal limitations were influenced by culture and biography and how people were furnished with the ability to think autonomously through transformational learning theory. Thinking autonomously as an art educator in this research study was essential for reflective, long-term personal learning. Autonomous thinking was also important for the students to make meaningful changes with individual learning in their

middle school art classes. Mezirow (1991) developed phases of transformational learning, which are essential for personal recognition and reflection on education practice.

Rogers (1961) in his theory of human learning, noted education becomes integrated; and outcomes were deeper when the learners were involved with their whole self: feelings, intuition, and cognition. Rogers (1961) discussed how learning was facilitated placing the responsibility on the student in the learning process. “When he chooses his own directions, helps to discover his own learning resources, formulates his own problems, decides his own course of action, lives with the consequences of these choices, then significant learning is maximized” (Rogers, 1961, p. 162).

The transformative learning process involved a psychological aspect that is necessary for the development of perceptions in art. Mezirow (1990) discussed making meaning of experiences by claiming “to make sense of an experience, we make an interpretation of it” (p. 1). In order to learn about art, reflection and assessing the meaning behind the imagery are imperative. Scanning, assessing, and reflecting are integral steps of transformational learning that are necessary to truly understand art and achieve an aesthetic experience.

Dirkx (2000) considered the aesthetic experience as one of the essential ways learners make sense of their underlying emotions and gain a deeper understanding of themselves. According to Dirkx (2000), changing the delivery of the art curriculum to a blended learning method provided exposure to art education experiences that were not possible in a traditional face-to-face learning method. Sorokin (1992) claimed, “The fine arts are one of the most sensitive mirrors of the society and culture of which they are an important part” (p. 26). Exposing students to the cultural aspects of art through blended learning modes could involve deep reflection of art looking at the ideational, idealistic, and sensate types of art through

external style and internal content. According to Sorokin (1992), ideational art was concerned with religion and God. Sorokin (1992) discussed that idealistic art represented a synthesis of the ideational and the noblest forms of sensate art. Sorokin (1992) believed that sensate art was the opposite of ideational art. In order to understand the meaning of sensate art the viewer needed to understand the phrase art for art's sake. This type of art primarily aims to display the artist's personal expression, and is all about perceptions, passions, and appearance.

Review of Research Literature and Methodological Literature

In examining the significance of studying blended learning in a middle school art class, a review of the existing literature on the key ideas and methods relating to blended learning was determined to be necessary. This literature review was organized by the key ideas related to implementation of blended learning in a middle school art class. A definition of blended learning was necessary to understand the strategy. The combination of using blended learning strategies with 21st century learning skills in the classroom improved assessment capabilities for educators. Another common factor reoccurring in the review of the research relating to blended learning, was the connection blended learning had with differentiated learning. In addition to the positive outcomes found in the review of the literature as a result of implementing blended learning, some challenges were also discovered. The literature review presents an inclusive discussion on the scholarly literature relating to the identified blended learning key ideas and methods and provides evidence of a gap in the literature specifically relating to blended learning in middle school art classrooms (Patten & Newhart, 2018).

Defining blended learning. A variety of definitions of blended learning were revealed in the review of the literature. Onguko, Jepchumba, and Gaceri (2013) argued blended learning does not have a generally accepted definition. Picciano (2014) claimed there were multiple

existing forms of blended learning in education. Picciano (2014) discussed a variety of terms used to describe the related learning approaches such as blended, hybrid, or mixed mode learning. The accepted definition derived by Picciano (2014) was that blended learning simply was a combination of online and face-to-face instruction. Garrison and Vaughan (2008) offered a definition of blended learning as face-to-face learning experiences combined with online learning. Staker and Horn (2012) discussed a definition of blended learning as including a formal education program where a student learns partially through online delivery of content and instruction allowing the student to control the pacing and partially through the traditional classroom setting away from the student's home.

Graham (2005) developed a similar definition of blended learning as a combination of “face-to-face instruction with computer-mediated instruction” (p. 5). Graham (2005) considered the definition of blended learning as a working definition. Graham and Dziuban (2003) further explained that in a blended learning environment, students have access to course related materials through web-based technology combined with face-to-face instruction in the classroom. Osguthorpe and Graham (2003) contemplated the combination of face-to-face learning with online learning balancing to obtain the maximum benefits of both learning environments. Blended learning models supported learning for students through collaboration in online delivery systems (Lapp, Fisher, & Frey, 2014).

There are four recognized models of blended learning including the rotation model, the flex model, the self-blended model, and the enriched virtual model (Moss & Fink, 2014). Moss and Fink (2014) explained it did not matter which model an education institution adopted because implementing blended learning through any model increased the classroom learning potential. The enriched virtual model offers a good fit for an art class. The enriched virtual model

includes the option of virtual travel for students to visit museums and significant locations in relation to art history through a virtual tour.

Variations of the definition of blended learning existed in the review of the research literature. A standard definition existing among researchers in the review of the literature was not found by this researcher. Each of the definitions explained by the various researchers informed this researcher of a general definition of blended learning. From the definitions of blended learning gained from the review of the literature, this researcher was able to contextualize the meaning of blended learning.

Blended learning as a strategy to improve assessment. Spector et al. (2016) discussed a shift in education pedagogy related to formative and summative assessments. The transition from a traditionally supported emphasis on summative assessments to an increased emphasis on the importance of formative assessments as a method to gain problem-based and inquiry-based learning presented a challenge in education (Spector et al., 2016). Teachers have traditionally placed a higher importance on the summative or final assessment (Spector et al., 2016). Spector et al. (2016) determined that increased emphasis was necessary on formative assessments or developmental assessments in education. Spector et al. (2016) suggested blended learning delivery methods used with formative assessments helped to determine student skill levels.

Professional development was suggested by Spector et al. (2016) to assist teachers in comfortably transitioning to blended learning delivery methods. The transition to blended learning supported a personalized learning system, which could provide large sets of data for teachers to find unique learning patterns, areas for improvement, and possible learning interventions (Spector et al., 2016). The data obtained through a personalized learning system

that used blended learning strategies was an important benefit to timely and informative feedback as discussed by Narciss (2008).

Longo (2016) explained how the development of the Common Core State Standards (CCSS) increased opportunities in instruction for teaching approaches such as blended learning to be used as a stimulant for problem solving in the classroom. The CCSS, according to Longo (2016), assessed students in different ways. The increased the need for problem solving supported by the CCSS utilized multiple approaches and assessment techniques (Longo, 2016). Lapp et al. (2014) stated that the CCSS included requirements for students to be able to integrate and evaluate content presented in diverse media and formats. Lapp et al. (2014) posited that the CCSS represented a shift in curriculum using more technology to help students become prepared for the future.

Blended learning offered teachers and students with a mechanism to improve assessment based on a review of the literature. Student skill levels can be assessed in blended learning through formative assessments (Spector et al., 2016). Longo (2016) discussed the benefit of blended learning supporting multiple assessment techniques for teachers to utilize with their students. Lapp et al. (2014) emphasized blended learning preparing students for the future. Assessment techniques can improve learning when blended learning is implemented (Lapp et al., 2014; Longo, 2016; Spector et al., 2016). More research on this topic could improve assessment to better meet the needs of students and provide teachers with the data needed to support change.

Differentiation through blended learning. Zainuddin and Halili (2016) claimed 21st century technology delivered instantaneous information accessible through a variety of technology tools. Zainuddin and Halili (2016) explained that students now more than ever, spend much of their waking time on using a variety of technology tools. According to Zainuddin and

Halili (2016), these tools allow students to interact, explore, and research based on their own personalized agendas. The 21st century learning strategies promoted through blended learning allow students to achieve at their own pace with the available technology meeting their differentiated needs (Zainuddin & Halili, 2016).

Kong et al. (2014) identified a research issue relating to using 21st century learning strategies. Kong et al. (2014) explained “the successful promotion of learners’ 21st century skills demands the paradigm shift to learner-centered learning in digital classrooms” (p. 74). Blended learning, when incorporated with 21st century learning strategies should give students access to resources and scenarios based on real-life and problem-solving skills (Kong et al., 2014). Kong et al. (2014) suggested to obtain real-life and problem-solving skills, teachers should change pedagogical practice and teaching motivations. Kong et al. (2014) examined two ways to achieve the change in pedagogical practice: creating an engaging, constructive and interactive learning process by applying 21st century learning strategies and increasing student’s social awareness of the world around them.

Swan et al. (2015) discussed the increase in blended learning programs for gifted students. Methods for meeting the needs of gifted students was studied by Swan et al. (2015) utilizing blended learning for acceleration and differentiating instruction. Swan et al. (2015) collected data through focus groups, classroom observations, interviews, and documents review. Previously completed empirically-based literature on blended learning in a gifted classroom documented little evidence on the effectiveness of this approach. (Swan et al., 2015). Swan et al. (2015) found that blended learning methods for gifted students could accelerate curriculum to middle school students labelled gifted. It was also determined by Swan et al. (2015) that benefits

of online instruction included cost, parent and student satisfaction, and individual pacing for students in the lessons.

Christensen and Horn (2008) claimed technology offered a customizable instruction option for students. Differentiated instruction was achievable through the customized capabilities (Christensen & Horn, 2008; Mazur et al., 2015). Christensen and Horn (2008) claimed that even though the option exists to use customized instruction, the computers do not deliver the instruction to students. According to Christensen and Horn (2008), the teacher was still a necessity in instruction. Christensen and Horn (2008) explained that students who have access to computers in school don't necessarily perform better on standardized exams.

Kim, Park, Yoo, and Kim (2016) discussed the education field fostering student's creative ability through interactive environments supported by technology. Kim et al. (2016) stated through interactive environments students are collaborating using brainstorming, problem-solving, and idea-sharing as they work to develop answers to the problems presented. The research by Kim et al. (2016) examined a teaching model claiming that using innovative technology in the classroom as a method to cultivate collaboration benefitted the student's comprehension, fostered creativity, and enabled improved expression and communication. The research completed by Kim et al. (2016) focused on classroom interaction and technology. Kim et al. (2016) claimed that interactions and technology used in the classroom nurtured the student's creativity. Kim et al. (2016) included tablets, electronic blackboards, interaction management solutions, and high-speed wireless internet in the research study completed about interactive environments and technology. Kim et al. (2016) claimed the results of the research showed the student's creative proficiency had improved. Kim et al. (2016) also stated that the student's creativity improved because of the instructional model for tablet-based interactive

classrooms that was used in the research study. Kim et al. (2016) claimed that relationships are built between creativity of the students and the features of the technology being used to solve the problems in the classroom.

Researchers discussed blended learning as a platform to differentiate learning for students (Christensen & Horn, 2008). Improvement in creativity and collaboration, as well as the ability to personalize learning for students were mentioned in a review of the literature (Kim et al., 2016). More research on this topic could inform teachers on what strategies are most beneficial to students.

Challenges transitioning to blended learning in the classroom. Transformative learning theory addressed the change process for adult learners (Mezirow, 2000). According to Mezirow (2000), “Transformation theory attempts to explain this process and to examine its implications for action-oriented adult educators” (p. 4). Mezirow (1991) discussed learning as a process using a prior interpretation to devise a new interpretation of experience to guide future decisions. In the case of blended learning, transformation cannot occur by the process of collection and dissemination of information alone (Styslinger, Walker, Lenker, & Fink, 2014). Styslinger et al. (2014) discussed the importance of challenging students through the blended learning strategies.

The challenges that existed for middle school teachers as they worked to change the instructional model through blended learning were varied based on the learning style of the student (Longo, 2016). Longo (2016) discussed the middle school educator’s quest to infuse technology into lessons for delivery of instruction and assessment. This quest is not always seamless for educators, and as Downes and Bishop (2012) expressed, educators often were expected by school reformers to be instinctive when implementing blended learning into their

lessons. Downes and Bishop (2012) found this was not always the case. An educator that was working on implementing blended learning, according to Downes and Bishop (2012), could need to make many revisions to the blended learning methods selected when developing a blended environment in an LMS. There were often elements of transformative process necessary to make the transition to blended learning most effective. Wilhelm (2014) argued, in order “to achieve transformative possibilities, technology must be used as a *research resource* and as a *design tool* for making usable knowledge artifacts” (p. 43).

Strayer (2012) explained blended learning challenges also existed in higher education settings. The challenge of utilizing blended learning in higher education required structuring the classroom in a different way (Strayer, 2012). According to Strayer (2012), educators have known the persistent challenge of how best to use technology when helping students learn. With the increased availability of the internet and computer applications over the past 20 years, Strayer (2012) expressed that college and university professors have strengthened their commitment to use computer technology to enhance classroom learning. Strayer (2012) reported that the challenges that existed in changing the structure and delivery of information were a hurdle that benefited teachers and students in the long run. Once the blended learning environment was developed, modifications were made easily to adapt lessons (Strayer, 2012).

Challenges in blended learning were identified in a review of the literature (Downes & Bishop, 2012; Longo, 2016; Strayer, 2012). More research on the topic of blended learning could yield more answers for teachers and less challenges when implementing blended learning. Suggestions for how to decrease the challenges and increase the benefits of using blended learning could emerge in future studies on blended learning.

Engagement and blended learning. Downes and Bishop (2012) explained engaged students are visibly delighted, attracted, and persistent while completing blended class work. Downes and Bishop (2012) expressed measures of successful engagement included a high level of meaning and significance present when a student completed a task. According to Betts, Appleton, Reschly, Christenson, and Huebner (2010), research on the topic of student engagement is continually emerging, and important questions are yet to be addressed. Differences in engagement based on maturity levels and gender were not evaluated by the researcher (Betts et al., 2010).

In a review of the research literature, many studies supported using blended learning. The Student Engagement Instrument (SEI) was developed by Betts et al. (2010) as a tool to measure important subtypes of both cognitive and affective/psychological engagement. A study completed on ninth grade students using the SEI found higher levels of engagement related to lower numbers of suspensions and to higher academic grades (Betts et al., 2010). Mazur et al. (2015) recognized a positive aspect of connecting blended learning to engagement by moving content review to a blended format for students to review outside of class, which allows for more engagement to take place during class

A review of the literature identified an increased focus on engagement in higher education. Vaughan (2014) claimed higher education has focused on engagement due to rising costs in tuition, retention rates, and concerns for overall student success. Vaughan (2014) suggested higher education advocate for redesigning curriculum to increase the 3 R's of engagement (relevance, rigor, and relationships). An increase in the 3 R's of engagement gave learners a purpose, autonomy, and mastery of skills (Vaughan, 2014). Vaughan (2014) discussed how blended approaches to learning provided an optimal environment for enhancing student

engagement and success. Vaughan (2014) concluded that blended learning offered the potential to improve content, reflection, problem-solving, collaboration, and authenticity in assessment, which Vaughan (2014) discussed would increase student engagement. Horn and Staker (2011) argued that due to the popularity of blended learning methods, by 2019 it was possible that 50 percent of high school classes would be offered online.

Through a review of the literature on blended learning four distinct themes emerged. The common themes were using blended learning as a strategy to improve assessment, ways in which blended learning supported 21st century learning and differentiation in the classroom, the challenges of using blended learning, and blended learning in relation to student engagement. It is important to acknowledge that the research completed in higher education on blended learning can impact K-12 education. According to Vaughan (2014), there is a need to research the impact of engagement in school prior to higher education, to assist students at an earlier age in the classroom.

Methodological literature: Qualitative. Creswell (2014) explained qualitative research as a method of exploring a social or human problem. The review of the literature on the topic of blended learning contained many examples of studies that focused on qualitative research. Case study designs were the primary strategy of inquiry conducted by researchers on the topic of blended learning based on the review of the research. According to Creswell (2014), case studies take an in-depth look at a process. Stake (2005) stated case studies involved researchers collecting information over a period using a variety of data collection procedures.

Veres (2013) completed a qualitative case study on blended learning affecting the self-perception of middle school teacher's effectiveness. The research purpose was to explore the perceptions of three middle school teachers on their effectiveness using blended learning

strategies (Veres, 2013). Veres (2013) triangulated the research by collecting data in journals, conducting semi-structured interviews, and making direct observations of the participants. These three methods validated and advanced the existing research (Veres, 2013). The three participating teachers claimed they were challenged and expressed pride in the creation of their blended learning environments. Veres (2013) concluded from the review of previous research significant growth was discovered in the middle school teacher's personal perceptions of effectiveness in using blended learning strategies.

In a similar study by Barbour et al. (2016), qualitative data was gathered from a case study. The case study offered an investigative method to study a phenomenon and the context in which the phenomenon existed to provide clarity on the topic of evaluation of online learning in the United States (Barbour et al., 2016). Existing policies and practices were examined for approval of online and blended classes in the United States to inform practices in Michigan (Barbour et al., 2016). The method used in the case study for research was document analysis (Barbour et al., 2016). Six months of data collection was completed through online existing documents and the data was organized through an open coding process (Barbour et al., 2016). Five dimensions emerged from the research. A focus on the level of evaluation and approval, whether the approval was optional or required by the state, the geographic reach of the evaluation and approval, whether the course was offered in an online or blended format, and the timing of the approval process were the five dimensions included (Barbour et al., 2016). Based on the research results by Barbour et al. (2016), "states have limited formal measures to determine whether an online course or an online learning provider is offering a quality learning opportunity to their students" (p. 40). The research by Barbour et al. (2016) provided clarity on evaluations used to judge the quality on online learning.

In a discussion on case studies conducted through content analysis, Kohlbacher (2006) emphasized that qualitative content analysis tried to overcome shortcomings by applying a systematic, theory-guided approach to text analysis using a category system. Zainuddin and Halili (2016) conducted a case study through content analysis of 20 journal articles written about flipped classroom instruction. Qualitative content analysis was chosen by Zainuddin and Halili (2016) because it was commonly used in research on educational technology. The goal of the research was to identify key words in flipped strategies, methodologies used in flipped classrooms, tools and platforms used for implementing flipped classrooms, and the impacts and challenges of flipped learning (Zainuddin & Halili, 2016). The findings on methodologies used in flipped classroom research showed that mixed methods were the preferred research design using surveys as the primary research instrument (Zainuddin & Halili, 2016). Many subject areas were found to have conducted studies on flipped classrooms (Zainuddin & Halili, 2016). A variety of platforms were used in flipped classrooms including: wikis, blogs, WebQuests, YouTube, Google Docs, Google Hangout, Blackboard, Dropbox, and Khan Academy (Zainuddin & Halili, 2016). Common themes identified in the study by Zainuddin and Halili (2016) included: flipped classroom, active learning, blended learning, flipped learning, technology integration, pedagogical issues, and e-learning. The study completed by Zainuddin and Halili (2016) found that flipped classrooms primarily had a positive impact on student achievement and motivation through the analysis of the 20 articles.

Methodological literature: Quantitative. Creswell (2014) explained quantitative research as a method of testing objective theories through examination of variable relationships. In quantitative research, numbered data is gathered and analyzed to test variable relationships (Creswell, 2014). Experimental, quasi-experimental, and correlational designs were discovered

in a review of the research on blended learning. According to Creswell (2014), surveys and experiments were strategies researchers often used when implementing quantitative research in their studies.

A quantitative study using quasi-experimental methodology was completed by Albhnsawy and Aliweh (2016) on the effects of blended learning in relation to the skills of student teachers over a nine-week period. The study sample consisted of 24 student teachers majoring in Science Education (Albhnsawy & Aliweh, 2016). Instruments used in the study were pre and post-tests comprised of 23 performance tasks (Albhnsawy & Aliweh, 2016). The performance tasks included instructional activities, content analysis, and lesson planning (Albhnsawy & Aliweh, 2016). The results were examined using a *t*-test for paired samples resulting in statistically significant differences for the overall teaching skills of the studied sample between the pre-test and post-test results (Albhnsawy & Aliweh, 2016). The mean score indicated the blended learning program was effective in increasing the teaching skills of the participants (Albhnsawy & Aliweh, 2016). Based on the results of the study, Albhnsawy and Aliweh (2016) recommended blended learning activities be included in preservice teacher programs. It is important to acknowledge the success blended learning has had in different subject areas.

Reynolds and Caperton (2011) completed a quantitative study using correlational methodology obtained from surveys over a five-year time period. The study explored 93 middle schools, 161 high schools, 20 community colleges, and 17 alternative education learning experiences in an education program on the topic of game design (Reynolds & Caperton, 2011). The survey used by the researchers had 199 respondents and was voluntary (Reynolds & Caperton, 2011). The results of the survey found that students felt the game making online

programming to be a relevant and meaningful way to learn about computational thinking (Reynolds & Caperton, 2011). The primary issues reported by students in the survey were based on content and due dates and not the technological aspects of the program (Reynolds & Caperton, 2011). The researchers found the study provided a useful context to explore questions on inquiry-based, problem-based, and discovery-based learning.

Eryilmaz (2015) completed a quantitative study using experimental methodology to study the effectiveness of blended learning environments. The researcher used a 55 item likert-type scale to assess 110 students on the effectiveness of the blended learning environment in their Introduction to Computers class (Eryilmaz, 2015). The results of the scale were interpreted to indicate positive opinions of students existed on the effectiveness of the course based on the blended learning environment in comparison to other learning environments.

Methodological literature: Mixed methods. Creswell (2014) explained mixed methods research as a method of inquiry that combines the qualitative and quantitative designs. Creswell (2014) suggested the overall study is stronger when qualitative and quantitative are combined to analyze the research. Triangulating data through a mixed methods approach was discussed by Creswell (2014) as a method to find convergence between qualitative and quantitative methods. Creswell (2014) explained that qualitative and quantitative data was integrated or connected in a supportive way to reinforce the data collected by many researchers.

Kee and Samsudin (2014) used a mixed methods design in their research on mobile devices and teenager's usage. The purpose of the research was to gather usage data from students to analyze how much mobile devices were used to complete learning activities (Kee & Samsudin, 2014). According to Kee and Samsudin (2014), a series of recorded interview questions were carried out with six teenagers. Data was gathered from the interviews to make

claims about the students and their usage of mobile devices for learning and non-learning activities based on a series of 22 interview questions (Kee & Samsudin, 2014). The data was organized into groupings by Kee and Samsudin (2014) comparing differences and similarities between male and female participants. Kee and Samsudin (2014) found male teenage students that used mobile devices were influenced more by their friends and female teenage students were influenced more by their own self-interests. Both male and female students felt their language and writing skills improved using the mobile device (Kee & Samsudin, 2014). Therefore, it may be that using technology in a blended learning art class could support learning skills in other curricular areas.

Vaughan (2014) researched student engagement and blended learning approaches in higher education and found that mixed methods using quantitative online surveys, qualitative interviews, and focus groups were used for research methods. Data was collected from two sections of a blended learning course over a two-year period (Vaughan, 2014). The participants included 273 students and eight instructors (Vaughan, 2014). Data was collected from pre-course interviews, a 75-item online survey, and student focus groups (Vaughan, 2014). The Blackboard Learning Management System (LMS) was used to obtain information on student page hits, per student and per course (Vaughan, 2014). Descriptive statistics were calculated based on scale scores on surveys (Vaughan, 2014). A comparative approach was used to identify and analyze patterns, themes, and categories (Vaughan, 2014). The findings suggested digital technology plays an important role in student engagement and learning (Vaughan, 2014). According to Vaughan (2014), collaborative learning incorporated into the blended learning course design increased student engagement.

Lemley et al. (2014) completed a mixed methods study on the topic of 21st century student's needs in education at the secondary level. The purpose of the study was to provide educators with information on improving education for 21st century students (Lemley et al., 2014). The researchers explored questions about which learning environment best supports the needs of 21st century secondary students, student perceptions on relationships between the learning environment and achievement, and student perceptions on relationships between the learning environment and teacher-student relationships (Lemley et al., 2014). The participants included 1,395 11th grade students in a large suburban school district (Lemley et al., 2014). Mixed methods research was chosen by the researchers to triangulate the data collected from students through questionnaires and semi-structured interviews (Lemley et al., 2014). The three themes discovered from the data were autonomy, relevance, and connection. Researchers claimed the data in this study proved education leaders need to understand the importance of the three themes to transform education in the 21st century for teachers and students (Lemley et al., 2014).

Review of Methodological Issues

Methods for implementing blended learning are as various as a definition of the concept. The review of the literature discovered many variations using blended learning in K-12 education and higher education. The methods chosen by researchers to study blended learning also included a wide variety of methodological issues. The methodological issues in the following sections are grouped by qualitative, quantitative, and mixed methods.

Methodological issues: Qualitative. Methodological issues and limitations existed in the review of the qualitative research. If the sample size is too small, significance among relationships are difficult to analyze (Price & Murnan, 2004). Longitudinal effects and limited

prior research are limitations that can occur in qualitative research (Price & Murnan, 2004). In the qualitative study completed by Veres (2013), four limitations were identified. The study focused on the experiences of only three teachers (Veres, 2013). This could have been expanded to increase the study's validity. The study only focused on a period of nine weeks (Veres, 2013). It is possible that teacher's perceptions could change if the time period of the study was expanded. Veres (2013) noted there was a lack of research on blended learning and teacher self-perceptions. Information on the topic was limited causing comparisons to other research to be non-existent (Veres, 2013). Veres (2013) designed the blended learning environment used in the study. The researcher controlled the environment in which the participants were exposed. This could also be considered a limitation of qualitative research like the limitation of self-reported data discussed by Price and Murnan (2004).

Methodological issues existed in the case study completed by Barbour et al. (2016). Barbour et al. (2016) claimed that due to the constant changes in state policies, longitudinal effects were a limitation of the research study. Barbour et al. (2016) determined that based on annual changes consistently being made regarding the policies on blended and online schools and classes, current studies would continually need to be completed to address subsequent practices and issues in future years. Longitudinal effect was the primary limitation of this study. It was suggested that the case study be modified to reflect student academic growth due to the policy changes made at the state level narrowing the study to looking at one comparative state over an annual time period (Barbour et al., 2016).

Zainuddin and Halili (2016) suggested no evidence of flipped classrooms directly resulted in improved student grades. Designing good content was also seen as a limitation of the study because many instructors spent a lot of time making design decisions that would motivate

students to complete the assignments (Zainuddin & Halili, 2016). Additionally, the subject of art was not listed as one of the subject areas in which previous studies of flipped learning was conducted in the 20 articles reviewed by Zainuddin and Halili (2016) on flipped classrooms.

Methodological issues: Quantitative. Methodological issues and limitations existed in the review of the quantitative research. Price and Murnan (2004) discussed small sample size as a common limitation issue in quantitative research. If the sample size was too small, significance among relationships were difficult to analyze (Price & Murnan, 2004). Methodological issues existed in the quantitative study completed by Albhnsawy and Aliweh (2016). Small sample size and short duration of the study were mentioned by Albhnsawy and Aliweh (2016) as limitations that made it difficult to generalize the findings to other contexts. It was suggested by Albhnsawy and Aliweh (2016) further investigation of the impact of various tools and applications on teaching strategies should be conducted. Albhnsawy and Aliweh (2016) discussed how the viewpoints of the teachers on blended learning strategies should be explored, and that qualitative methods should be used to research blended learning strategies in different areas outside of the education realm.

The research completed by Reynolds and Caperton (2011) on the topic of game design using a quantitative design had methodological issues present due to the length of the study. According to Reynolds and Caperton (2011), a five-year study on the program was too long. Many changes took place over a five-years relating to technology, practices, and procedures (Reynolds & Caperton, 2011). The study was evaluated after one-year and adjustments were continually made to the program each year (Reynolds & Caperton, 2011). Two areas specifically discussed by Reynolds and Caperton (2011) that needed more attention were the observations of

types game design used in the study and the amounts of scaffolding that effected the outcomes of the study.

Methodological issues existed in the research completed by Eryilmaz (2015) concerning the narrow focus of the study and the use of a Likert scale. The study by Eryilmaz (2015) was narrow in focus, only reviewing one course utilizing blended learning which could be a limitation to the study. A comparative study of another course in a different subject area administered using similar blended learning methods could have been conducted. According to Eryilmaz (2015), a Likert scale was common in quantitative research and would not be considered a limitation. The limitation exists when the researchers were only able to obtain scores of the occurrences studied and are not able to explain the reasoning behind the Likert scores. The five-point Likert scale used was concluded to be beneficial for data collection, but it did not allow for students to add personal comments about the questions which limited the analysis of the why behind the scores collected (Eryilmaz, 2015).

Methodological issues: Mixed methods. Methodological issues and limitations existed in the review of the mixed methods research. A limited study sample could be a limitation in a mixed methods research study. Kee and Samsudin (2014) claimed to use a limited study sample purposely to provide a concise focus. Despite the concise focus on six students, according to Kee and Samsudin (2014), using only six students for the interviews did not provide a large enough sample to make firm claims based on the interview data gathered. Limitations also existed in the student's use of their devices. The students were limited to YouTube, Wikipedia, and Google search to show interest in using the device for learning (Kee & Samsudin, 2014). Other search engines and apps were not included in the student's options for learning using their devices. Students might have expressed greater interest in the learning objectives of the study using the

student's mobile devices if they had freedom to search in a manner that they found helpful. Increasing the student's freedom to search any manner might have yielded more useful information (Kee & Samsudin, 2014).

Methodological issues existed in the study completed by Vaughan (2014) based on the response rate for the study excluding many students enrolled beyond the first year of college. The survey response rate for students was 53% with a high percentage of responses coming from first year college students (Vaughan, 2014). The large survey response percentage of first year students excluded the perceptions of older and more advanced levels of students in the results. Vaughan (2014) suggested that, based on the data gathered in this study, it was not clear if technology was engaging or if it was a direct contributor to active and collaborative learning as the engaging methods employed.

The study completed by Lemley et al. (2014) had two methodological issues. The student sample size was very large. The large sample size created a large amount of data for the researchers to analyze which was time consuming. Lemley et al. (2014) could have compared a smaller student sample to samples in other similar districts as an option for further research. The study by Lemley et al. (2014) also only researched student perceptions. A study based on perceptions of teachers or administration may have complemented and strengthened the overall findings to provide a variety of perceptions and input. Previous research on the topic of blended learning has mainly used quantitative studies to indicate that a relationship between subject knowledge and blended learning exists.

Synthesis of Research Findings

Researchers studying blended learning and related instructional approaches associated with blended learning discovered differences in their findings. Synthesizing the research findings

was necessary to identify common elements in the research and develop an accurate picture of prior research on topics related to blended learning. Researchers such as Garrison and Vaughan (2008), Onguko et al. (2013), and Picciano (2014) discussed differences in terminology used when referring to blended learning, as well as differences in the definition of blended learning and the models used to implement blended learning. Differences in terminology and definition were common in a review of the literature on blended learning. These differences justified more research on this topic area for clarification.

Blended learning was discussed by many of the researchers as a strategy to improve assessment. Formative and summative assessments implemented into blended learning strategies were suggested by Spector et al. (2016) to increase the effectiveness of assessments and the information they provide. Spector et al. (2016) also recommended professional development for teachers utilizing blended learning strategies in their classrooms. Longo (2016) supported using blended learning as a strategy in assessment and to provide multiple methods of assessment. The benefits suggested by Spector et al. (2016) and Longo (2016) for implementing a blended learning environment and increasing the effectiveness of assessments were valid reasons for education institutions to support teachers in utilizing blended learning.

Differentiated learning was a topic in the review of the literature connected to blended learning strategies. Zainuddin and Halili (2016) agreed that technology provided an avenue for differentiation that students thrive upon. Blended learning utilized available technology for a variety of options to meet student's needs (Zainuddin & Halili, 2016). Zainuddin and Halili (2016) analyzed trends in flipped classrooms by researching articles on flipped classroom initiatives. The analysis by Zainuddin and Halili (2016) explained that flipped classrooms led to positive impacts in student learning in achievement, motivation, engagement, and interaction.

Swan et al. (2015) researched the topic of gifted students learning. Swan et al. (2015) discussed blended learning as a common method used for the delivery of gifted student's curriculum. Investing in blended learning strategies could provide options to differentiate learning and increase student success rates through the learner-centered methods for learning that were necessary to attract the attention of 21st century students (Kong et al., 2014).

Engagement related to the blended learning strategies was another key idea in the review of the research. Mazur et al. (2015) discussed connecting blended learning to engagement by moving content review typically completed in class to a blended format. Mazur et al. (2015) claimed allowing students to review content outside of class in a blended format resulted in more engagement taking place during class. Increasing engagement through blended learning strategies had a positive impact on 21st century students according to Graham and Dziuban (2003). Graham and Dziuban (2003) stated the increase in the success of students was an important reason for using blended learning strategies in all levels of education and continually researching the topic of blended learning. However, at the time of this review of the literature, research had not been completed on the connection between blended learning and engagement in middle school art classes creating a noticeable gap in the literature (Patten & Newhart, 2018).

Critique of Previous Research

A critique of the previous research was necessary to understand and assess the merit of research completed prior to this study. Mezirow's (1991) transformative learning theory suggested that critical reflection could transform beliefs and practices. Researchers completed studies critically reflecting on blended learning strategies and topics related to blended learning strategies such as assessment, engagement, and differentiation (Longo, 2016; Mazur et al., 2015;

Zainuddin & Halili, 2016). The findings in those studies were pertinent to further research on middle school art education and the implementation of blended learning strategies.

Quantitative, qualitative, and mixed methods were used by researchers in the study of blended learning strategies and related topics (Albhnsawy & Aliweh, 2016; Barbour et al., 2016; Kee & Samsudin, 2014). Sample size, duration of the study, and longitudinal effects of the study were common issues in the methodology. Researchers in the review of the literature and methodology completed for this study did not include the subject of art (Patten & Newhart, 2018). The exclusion by the research community prior to this study did not allow the benefits and challenges of implementing blended learning strategies into the art classroom to be considered. A summation of the findings on the research of blended learning strategies was mainly positive for other curricular areas (Veres, 2013). Student success and engagement were highlighted as the main positive attributes of implementing blended learning strategies with traditional face-to-face learning strategies (Graham & Dziuban, 2003).

Chapter 2 Summary

Chapter 2 reviewed existing literature on themes relating to blended learning and engagement such as 21st century learning, assessment, differentiation, and engagement (Albhnsawy & Aliweh, 2016; Barbour et al., 2016; Kee & Samsudin, 2014). The review of the literature supported further research on blended learning and engagement relating specifically to middle school art (Patten & Newhart, 2018). Dewey (1944) discussed change being a necessity to educate the “children of tomorrow” and emphasized that the future needs to be considered (p. 167). Blended learning is a way for art teachers to utilize the technology available and increase student engagement (Louwrens & Hartnett, 2015). Blended learning creates a more personalized approach for students to obtain information and learn (Dixson, 2015). When effectively

implemented, blended learning also meets the needs of the 21st century learner (Barbour et al., 2016). Dewey (1944) argued that “meaningful and educationally worthwhile knowledge is a process of continuous and collaborative reconstruction of experience” (p. 11). Based on the review of the research literature, a case study with an in-depth exploration in a middle school art class would be a valuable inclusion to the present research on blended learning and engagement (Patten & Newhart, 2018).

A study based on understanding student engagement in middle school art class and the use of a blended learning environment was necessary to fill a gap in the research (Patten & Newhart, 2018). Based on the review of the literature, which developed a unique conceptual framework using blended learning, learning management systems (LMS), differentiated instruction, engagement, and 21st century learning, there was enough reason for thinking that an investigation explaining the impact of blended learning in the middle school art class would yield interesting findings (Albhnsawy & Aliweh, 2016; Barbour et al., 2016; Kee & Samsudin, 2014). The literature review provided strong support for pursuing a research study to answer a research question asking how an art teacher perceived blended learning methods to affect student engagement in an art class. A review of the literature on the topic of engagement related to online learning in middle school revealed studies in other curricular areas, but not specific to blended learning in a middle school art classroom (Veres, 2013). A study based on art education and blended learning’s relationship to student engagement filled a gap existing in the research literature (Patten & Newhart, 2018).

Chapter 3: Methodology

Introduction to Chapter 3

The National Core Arts Standards (NCAS, 2016) mentioned creative and innovative strategies as imperative methods to build student skills in research, problem-solving, interpretation, and communication. The NCAS (2016) goals aligned with other education standards to identify learning and guide improvement in the delivery of learning strategies. Teaching in the arts required success and engagement in the following four areas: imagination, investigation, construction and reflection (NCAS, 2016). These four areas are expected to be achieved through multiple experiences (NCAS, 2016).

This study was constructed based on the assumption that student engagement in an eighth grade art class was consistent with positive achievement connected to the implementation of blended learning strategies (Betts et al., 2010; Mazur et al., 2015; Townes, 2016). Based on this assumption, blended learning strategies regarding student engagement in the four areas of imagination, investigation, construction, and reflection were an important focus of this study.

The purpose of this qualitative exploratory case study was to identify blended learning strategies used by a middle school art teacher and the art teacher's perception of student engagement based on using the blended environment. According to Yin (2003), an exploratory case study explores situations where the outcomes might not be clear. This chapter will present the research questions that guide the study, the discussion of the research design, the data sources and methods used to access the data, identify instrumentation, and describe data collection methods. This chapter will also describe attributes, limitations, and delimitations, validity, expected findings, and discuss ethical issues.

Research Questions

The three research questions guiding this study were focused partially on blended learning strategies combined with 21st century skills to engage eighth grade art students in the areas of imagination, investigation, construction and reflection as discussed in the NCAS (2016) and the art teacher's perception of student engagement. The implementation of 21st century skills into the middle school art classroom through blended learning focused on critical thinking and problem solving, creativity and innovation, and communication and collaboration (The Partnership for 21st Century Learning, 2015). Data was collected through observations, interviews, and document analysis addressing the following questions to inform the research study.

1. How are art classroom norms, routines, and classroom expectations impacted by the implementation of blended learning strategies?
2. How are the NCAS (2016) focused on in the blended learning instructional material?
3. How are student-centered instructional strategies implemented to engage students individually in a blended learning environment?

The purpose of research question one was to explore expectations in the learning environment that support blended learning strategies in an eighth grade art class. Saritepeci and Çakir (2015) conducted a quasi-experimental study to assess the effect a learning environment has on student engagement. Significant increases in academic achievement were discovered in the study by Saritepeci and Çakir (2015) based on the implementation of blended learning strategies in the classroom. For the qualitative case study, the researcher recognized classroom norms, routines, and expectations that needed to be adjusted to support blended learning strategies in the art classroom with a goal of increasing student engagement.

Research question two focused on exploring the NCAS (2016) used in the selected blended learning strategies. According to the NCAS (2016), the standards were developed to reflect the artistic knowledge necessary in the United States and internationally. A blended learning environment was observed to see how students engaged in the NCAS (2016) in the art lessons. The art teacher in this study identified the NCAS (2016) in the lesson transcripts (See Appendix A) included in the Schoology LMS. The information collected for question two examined which NCAS (2016) were met in the blended learning lessons.

Research question three reflected on the role of the art teacher in relation to the process of increasing student engagement in a blended learning environment. According to Hattie (2011) and Le Ha (2014), in the past 20 years education has moved in the direction of student-centered learning, claiming it is most effective. The teacher as a facilitator, according to Le Ha (2014), has become almost synonymously associated with student-centered learning. Designing a blended learning environment that included discussions, resources, and assessments was a common responsibility of a teacher facilitator. Spector et al. (2016) discussed the importance of teachers gathering formative data through performance and assessment. Gathering data, as mentioned by Spector et al. (2016), was necessary through technology-enhanced learning opportunities created by the teacher in blended learning.

Purpose and Design of the Study

The purpose of this study was to explore the actions of one middle school art teacher implementing blended learning methods in the art class to determine what effect the art teacher perceives blended learning has on the eighth grade art student's engagement in the subject matter. Studies have been completed in other subject areas in K-12 education determining if a relationship exists between blended learning and student engagement (Kliger & Pfeiffer, 2011;

Vaughan, 2014) and on blended learning and engagement in general (Mazur et al., 2015). Based on the lack of research on blended learning and engagement in a middle school; this study was relevant and filled a gap in the research (Patten & Newhart, 2018).

Many qualitative studies have been completed on the topic of student engagement. Dolezal et al. (2003) researched nine third grade teachers in Catholic schools to determine how teachers motivate students. Dolezal et al. (2003) determined that engagement varied amongst the nine teacher's instruction methods. The two classrooms decided by Dolezal et al. (2003) to be most engaging had teachers that made the "content interesting, appropriately challenging, and gamelike" (p. 240). Dolezal et al. (2003) did not further research whether the blended learning instruments used to create the game-like content were primarily the reason for the increased engagement.

Raphael, Pressley, and Mohan (2008) researched nine middle school teachers in public schools teaching sixth grade math, science, language arts, and social studies. Raphael et al. (2008) claimed it was obvious during the research study that the more engaging classrooms included much more variety in teaching. Raphael et al. (2008) required more observation time to describe the teaching in the classes that were more engaged. One of the teaching methods discussed by Raphael et al. (2008) in the engaged classes was blended learning. Despite Dolezal et al. (2003) and Raphael et al. (2008) studying blended learning in connection to engagement; art specifically, was not included in the studies. This supported the need for further research to fill this gap (Patten & Newhart, 2018).

A qualitative exploratory case study research design was selected to allow this researcher to study student engagement from an art teacher's perspective through her actions, the intended purpose, and reflection on the outcomes of implementing blended learning methods in an eighth

grade art class. Stake (1995) discussed that case studies include goals of exploring, describing, and understanding complex social interactions and situations. These goals aligned well with the intended purpose of this study. The purpose of this study was to explore the actions of one middle school art teacher implementing blended learning methods in the art class to determine what effect the art teacher perceived blended learning has on eighth grade middle school art students' engagement in the subject matter.

The review of the literature provided insight into the connection between student-centered engagement and technology through qualitative studies in other areas. Martin, Nacu, and Pinkard (2016) studied language arts teachers in a middle school implementing technology strategies for learning into a class. Martin et al. (2016) claimed that if students are exposed to technology in school, they are more likely to choose to go into a technology related field. The research study completed by Martin et al. (2016) attempted to prove the claim through observation and categorization methods of the qualitative data collected. Kee and Samsudin (2014) completed a qualitative study supported by quantitative data to learn about students and mobile technology devices. Kee and Samsudin (2014) argued students were engaged by things they were most interested in. To increase student utilization of mobile devices for learning, Kee and Samsudin (2014) discussed the lessons need to be more personalized to the student's interest to increase engagement. Understanding connections between blended learning strategies and an art teacher's perception of engagement in the eighth grade art classroom might influence art teachers to continue or begin to blend learning.

Research Population and Sampling Method

This study utilized an exploratory case design (Yin, 2003). Data was collected from one classroom of a middle school art teacher in the Midwest. The art teacher instructed multiple

sections of art in grades six, seven, and eight every day. The single case study using an exploratory approach allowed for an opportunity to identify multiple classes' engagement based on blended learning strategies employed by the art teacher. The art teacher in this case remained the same, but two classes of eighth grade art students were utilized to better understand the art teacher's choices in a blended learning class and a traditional face-to-face instruction class. Classroom norms, routines, and expectations were addressed through research question one. The blended learning strategies used by the art teacher to engage different groups of students were noted. Interviews were conducted in the data collection phase to explore the art teacher's blended learning strategy choices based on the NCAS (2016) and connecting them to research question two. The varying nature of student-centered instructional strategies based on differentiation between the two classes of students was addressed in research question three.

This study was conducted in the classroom of one middle school art teacher, with the research population including the study of the art teacher and the blended strategies used in the classroom. The sampling method utilized in the study was nonprobability sampling with the intention of revealing insights that could be applied to other cases (Yin, 2009). The school in the study was a small, rural middle school serving approximately 600 students in grades six through eight. The school employed only one art teacher to serve the middle school population. The art teacher who participated in the study has approximately ten years of experience teaching middle school art in the same school district. The art teacher was interested in improving teaching while increasing the noticeable engagement of students in art subject matter.

The teacher and the classroom selected were useful research subjects in the context of a common middle school art education classroom in the rural Midwest. It was not uncommon for a rural art teacher to teach all the students that chose to take art class throughout their middle

school student career lasting three years. The teacher in this study has taught students in multiple contexts from kindergarten through the eighth grade between the regular school year and summer sessions. The longevity of the teachers position in art was effective in building long-standing connections with the students. Lemley et al. (2014) studied teacher-student relationships to determine if relationships between student and teacher were important in student learning and engagement. Lemley et al. (2014) reported in the findings of the study that the students' level of achievement with 21st century technology was connected to the strength of the teacher-student relationship.

Flanagan (2016) completed a case study in the Midwest at an independent school implementing a one-to-one iPad initiative. Flanagan (2016) claimed as a researcher, "the study was conducted from the critical realist perspective because this world view helped to understand...the context and interactions, while recognizing that there is no one truth, and that constructed truth is independent of the phenomena that is occurring" (p. 48-49). A case study approach worked for Flanagan (2016) by allowing immersion into a school setting to understand the implementation from the perspective of the teacher. Through immersion into an eighth grade art class where the teacher was working to implement a blended learning environment with a goal of increased engagement in art, suggestions for best practices in art education emerged.

Instrumentation

This case study relied on the use of data triangulation through observations, interviews, and document analysis conducted over a nine-week period. The researcher was a visible participant in the setting when conducting observations. Data collection techniques discussed by Stake (1995) and Merriam (2009) described the main goal of the researcher as gathering information. Field notes were taken while observing the art teacher and the class. The observed

classes were also recorded and transcribed for precise analysis of classroom procedures based on blended learning methods utilized in each lesson. Merriam (2009) suggested how the observations of the participants, the physical setting of the observation, the context of the class, class activities, and notes about future questions for interviews were important factors to collect as observational data in a case study.

Interviews were conducted with the art teacher based on information gathered during observations of blended learning methods infused into art lessons. The teacher's thought process and decisions made regarding blended learning methods selected to use with the eighth grade art class were important when making connections to observing student engagement in the lessons. The recordings of the lessons were helpful when looking at the specific word choice and prompts used by the teacher relating to the NCAS (2016) and engaging students in the blended learning methods incorporated into the art lessons (research question two). Recording the lessons provided more reliability and less chance of researcher interpretation hindering the reported information. The interview process allowed for clarification between the observations of the researcher and the art teacher's perspective. The interview process provided background information on the student-centered instructional strategies chosen to engage students in a blended learning environment (research question three). Stake (2005) mentioned that much of a researcher's data collected through observation was impressionistic. Interviews with the teacher helped to clear up questions that the researcher had and gain insight on the teacher's purpose.

To support triangulation in qualitative case study research, document analysis, as discussed by Stake (1995), was used to confirm connections between art classroom norms, routines, and classroom expectations supporting the implementation of blended learning strategies (research question one). The study relied on analysis of documentation that existed

commonly as part of art teaching such as a class syllabus and assignment information published in Schoology. Schoology was the online learning management system (LMS) chosen by the art teacher in this study. In Schoology, students had access to classroom information such as quizzes, tests, videos, discussions and other information related to unit lessons, such as vocabulary and unit objectives. This information was considered a norm for the setting and could be seen in similar middle school art classrooms. The documents helped to determine what areas of instruction were directly connected to blended learning strategies that the art teacher used in the classroom. The documents also helped to develop questions for the interview process, which clarified observed behaviors and the art teacher's intended outcomes for the researcher.

Data Collection

Permission for this study was granted from the school district superintendent for nine weeks during the school year (See Appendix B). The middle school art teacher was contacted by phone and e-mail to participate in the study. Information was provided to the art teacher about the case study and the data that would be collected. Data was collected during nine weeks of an eighth grade art class during the school year.

Observations began during the first week of the fourth quarter. Field notes were collected during each 45-minute observation. After the notes were collected by the researcher during the observation, the notes were reviewed and categorized with highlighter within the same week. Notes were made based on the three research questions in this study. Each observed class was recorded and transcribed until the end of the nine weeks of observations. The 45-minute class that was observed each week was selected through conversations with the art teacher. The blended class selected was the only class the art teacher had transformed using the Schoology

LMS as a method to use blended learning. Transcripts were developed from the recordings within one week of the class recording.

The researcher also observed a second eighth grade art class without the blended structure. The class had a similar number of students enrolled and studied the same curriculum. The only difference was the lack of the Schoology LMS, which provided the blended experience. This class was also observed for 45 minutes every week. The same handouts were used with this class that the blended class used. Additional resources online such as quizzes, websites on artists, vocabulary links, or discussions forums were not used in any part of the class. This class relied on traditional structure to the art class with face-to-face discussions, explanations of vocabulary, printed quizzes, and posters with artist information.

Artifacts used in the blended class and the non-blended class, such as classroom handouts, information housed in Schoology, and information relating to the setting and demographics of the class were collected prior to each individual observation. Any information that was handed out to students to use in class was also given to the researcher. The researcher was given access to the Schoology LMS in a student view to access all the included materials used for the students in each lesson. The art teacher also provided district demographic information to the researcher based on the number of students enrolled in the school district and the students reported race.

One interview session with the art teacher was arranged every week during the art teacher's 45-minute prep period. The interviews were conducted in-person with questions from the interview question list (See Appendix C). A continuous collection of data was analyzed to help develop interview questions related to the data needed for the study. The initial interview questions were adapted to appropriately coincide with the observed lesson. For example, five

questions were selected from the interview question list to discuss during one interview session and a different set of five questions were selected for the next interview session. Merriam (2009) suggested that data analysis and data collection should occur in a simultaneous fashion. Interviews were designed to obtain information that clarified any impressions the researcher obtained from the observations and data collection.

Identification of Attributes

The purpose of this study was to explore the actions of a middle school art teacher implementing blended learning methods in the art class to determine what effect the art teacher perceived blended learning has on the eighth grade art student's engagement in the subject matter. Expected findings included the amount of time the teacher used when introducing a blended learning strategy to the class. The use of formative assessments with the blended learning strategy could be related to the quality of the blended learning strategy and the knowledge gained by the students through using the selected blended learning strategy.

Teacher prompts, inquiry-based instruction, and differentiation were important attributes in the research. Longo (2016) claimed utilizing blended learning with inquiry-based instruction increased motivation. Blended learning, according to Longo (2016), provided students with a personalized education. The level of personalization available in the blended learning strategy was a contributing factor in the level of engagement seen while students were completing the lesson. These contributions were anticipated along with the possibility of others emerging as the analysis process occurred. The connections between the teaching practices supporting engagement and the teacher perceived outcome was important to monitor when evaluating the connection between the blended learning strategy and the teacher's opinion of the level of engagement.

Data Analysis Procedures

The researcher focused on many blended learning strategies used by the middle school art teacher to engage students when learning about art. Data analysis of these strategies occurred during the entire study in conjunction with collecting data. Lesson transcripts (See Appendix A) and field notes were analyzed using excel spreadsheets. The analyzed field notes and lesson transcripts were used to discover common themes and patterns related to the blended learning strategies selected by the art teacher to engage students in art. The common themes and patterns discovered led to ongoing data collection necessary to confirm the patterns' existence. The new data collection worked to verify the existence of trends in blended learning implementation in art education. Organizing data collected from the Schoology LMS followed a framework developed by Pazzaglia, Clements, Lavigne, and Stafford (2016) who used a group-based trajectory model to study engagement patterns existing in online courses for students in virtual schools.

Field notes, observations, and lesson transcripts (See Appendix A) were organized for analyzing in an excel spreadsheet by topic. The entries contained information such as the date and organizational data, such as whether the data was collected from an observation of a lesson, from field notes, or from transcripts. The information was coded to include information on the art teacher's perceptions of student engagement in the activities and the specific research question that was noted for the entry (research question one, two, or three). Creswell (2013) discussed using lean coding in data analysis that is custom built to categorize data. The codes were grouped into common themes to help identify patterns in the data.

The observations of the blended learning lessons provided an understanding of the classroom set-up, support available for instruction, and student activity during the lesson. Veres (2013) used observations as one method selected for triangulation in a study completed on

blended learning and teacher effectiveness. The observations in the current case study focused on the art teacher's perception of effectiveness and student engagement. Student behavior was not of interest during these observations, but it was an important factor in choices made by the art teacher during the lesson to respond to the demands of the climate in the classroom. Classroom norms and expectations (research question one) were assessed during the observation of the blended learning lessons and the non-blended lessons. Blended and non-blended learning lessons for the purposes of this study were observed solely in class. Students had access to the Schoology learning management system (LMS) from home, but only instruction utilizing the Schoology LMS during class time was focused on in this study. Documents and assignments in the Schoology LMS were reviewed to discover evidence related to the classroom norms and expectations (research question one).

Interviews with the teacher were recorded and transcribed so data from the interviews could be analyzed. Dixon (2015) completed a similar study using interviews comprised of teacher and student comments in online discussions to guide the research on student engagement in online learning. The information from the interviews in this case study that were particularly useful pertained to the art teacher's reflection on the intended outcomes for specific blended learning resources and the art teacher's perception of how successful the lesson engaged students to learn about art. Themes were discovered in the interviews and compiled in Excel spreadsheets to help with identifying emerging patterns. Success of the blended learning methods in the art classroom were discussed with the art teacher during the interview sessions. The teacher's assessment of student engagement and successful completion of student assignments were predictors of the blended learning integration success. The interviews served to check the

accuracy of the researcher's description of the blended learning lesson and the description of events that occurred during the lesson.

Limitations of the Research Design

The case study methodology allowed this researcher to focus on teaching strategies and the use of blended learning materials in a middle school art class. Hancock and Algozzine (2016) discussed case studies as useful tools for researchers when the goal is seeking out themes, categories of behaviors, or events in research. Analyzing the blended learning strategies used by the art teacher to increase student engagement and experiences with 21st century skills was the central focus of this research study. Limitations and delimitations are present in cases study research design. Stake (2005) discussed limitations in qualitative case studies to include the sensitivity and integrity of the researcher. According to Stake (2005), the researcher is the primary data collector and analyzer in case study research, which could be a disadvantage. The researcher needed to rely heavily on perceptions when conducting the case study research. Caution was necessary to not allow pre-determined perceptions in the research by utilizing careful analysis of the information collected.

Data was collected for this study from the classes taught by the participating art teacher and the materials used as resources for the eighth grade art classes. Qualitative data on the art teacher's chosen instructional strategies during each class were documented by the researcher. The art teacher's interviews helped clarify the expected outcomes and the art teacher's perception of student engagement. The data collected for analysis by the researcher did not include possible variations of the activities discussed by the art teacher during the interviews. This was a limitation in the research study. The variations of the activities discussed by the art teacher were identified by the researcher as interesting, but in reviewing the variations of the

lessons and discussing the impact, they were out of the realm of the focused research in the case study. Including additional variations to the activities discussed could have added more useful information for art teachers.

Stake (1995) and Yin (2014) recognized limitations in the qualitative interpretations in case study research. Stake (1995) mentioned qualitative descriptions could be subjective. Yin (2014) discussed concerns with generalizing information as a limitation in case study research. To address concerns with subjectivity and generalizations of information triangulation was used. Triangulation of data was used in analysis of observations, interviews, and documents obtained in the case study research. Observation notes were categorized by the level of student engagement using an engagement scale. Interviews with the art teacher were recorded and transcribed for information on norms, routines, and classroom expectations. Documents and materials posted in the learning management system were categorized by their connection to the NCAS (2016).

Other limitations could have existed within the setting where the case study research took place. The art teacher in the case study was one of six art teachers in the small rural school district. The art teacher was the sole middle school art teacher in the district. In consideration of the greater diversity that exists in many other middle schools in the United States, this population could raise concerns about transferability. Also, focusing the case study research on one art teacher could have been a limitation to this case study research. The analysis of one art teacher's use of blended learning strategies and how engagement was perceived by the teacher in the eighth grade blended learning class have could have led to transferability issues.

The focus of this case study research was on the instructional decisions made by the art teacher on blended learning strategies used engage the students. The interview questions were

used to gauge the decision-making process of the art teacher relating to choosing specific blended learning strategies. Clarifying these factors provided an important perspective in the description of the narrative. This clarification will allow the reader of the narrative to decide whether any of the factors pointed out are generalizable. Despite any generalizations, the reader will be allowed to develop his or her own meaning from the narrative and the collected data.

Validation

Merriam (1998) discussed validity in case study research. Merriam (1998) claimed the researcher should make assumptions on world view and theoretical orientation clear when discussing results and conclusions made in case study research. Clarity on the research gap helped to support validity in the case study research (Patten & Newhart, 2018). Creswell and Miller (2000) stated that “Qualitative researchers routinely employ member checking, triangulation, thick description, peer reviews, and external audits. Researchers engage in one or more of these procedures and report results in their investigations” (p. 124).

Credibility. The case study used respondent validation, comparison, and triangulation to present and report an understanding of how the art teacher chose blended learning strategies to increase her perceived engagement of the students in her art class. Credibility was obtained during this process through creation of confidence in the data. While participating in the interview sessions, the art teacher engaged in respondent validation. The validation decreased the potential for misrepresentation of information in the case study. The respondent validation balanced the art teacher’s personal intentions with the information gathered from observations of the lessons and collected artifacts. The interviews served to clarify the interpretations formed by the researcher in the observation sessions and through the review of documents.

Dependability. Engaging the teacher in the member checking process discussed by Creswell and Miller (2000) allowed themes and categories to emerge in the data collection and analysis. Member checking also allowed the researcher and the art teacher to work together to establish and confirm conclusions and interpretations. Using a comparison between two classes of eighth grade art students helped to highlight possible variations existing in the case study. The two classes of students were demographically different. Their learning needs varied. In the observations of the art teacher's interactions with the students while using blended learning strategies in her lessons, it was evident to this researcher that possible generalizations could be made. Triangulation through analysis of the observations, interviews, and documents helped to improve the researcher's understanding of the art teacher's blended learning strategies by providing multiple sources of evidence. Using triangulation in the research helped to show dependable research findings.

Using descriptions in a narrative format helped to establish credibility and dependability in the case study research by allowing the reader to decide if the findings were aligned with the data provided. Presenting multiple sources of data fortified reliability in the identified themes and the case study conclusions. Researcher bias was avoided through sharing results of data collected with the participant and using triangulation of the data collected. The findings in this case study were compared to the findings in similar studies mentioned in Chapter 2. The reader was able to explore the findings easily due to the clarity in the presentation of data, the multiple sources of information, and the explanation of possible meanings.

Expected Findings

In relation to research question one, which asked how art classroom norms, routines, and classroom expectations are used to support the implementation of blended learning strategies, it

was expected that the findings would support previous research by Lemley et al. (2014). Lemley et al. (2014) found that classroom norms, routines, and expectations supported implementation of blended learning methods. The participating art teacher used a learning management system (LMS) called Schoology to engage students in blended learning methods for multiple school years. The teacher used multiple methods of presenting information and assessing student understanding of information through the Schoology LMS platform. The blended learning strategies focused on discussions on subject matter, various methods of presenting new material to students, and various methods of assessing student learning. It was anticipated that classroom observations would show individual students engaged in learning through the method that they adapt to best. For example, it was expected that many students would glean information about the lesson from the information housed in the Schoology LMS, demonstrating the preferred learning style through independent review of the material. Some students, based on their preferred learning style, would learn best from the in-class discussions and demonstrations given by the teacher. It was expected that by blending the two approaches, the art teacher would perceive a large percentage of the eighth grade art class to be engaged in learning about the lesson.

Regarding research question two, which asked how the NCAS (2016) were focused on the blended learning instructional material, it was expected that the findings provide direction for supporting the NCAS (2016) by addressing blended learning instructional material that meets the national standards. Previous research by Hutchison and Colwell (2014) discussed ways teachers could integrate digital technology into instruction with the intent of enhancing literacy instruction to support both digital and non-digital literacy skills. In addition to meeting media arts standards, it was expected that offering lesson materials to students in digital formats would

elicit higher grades on assessments when compared to the eighth grade art class that does not use the blended learning strategies. As the art teacher participated in this study, it was anticipated that she would become increasingly aware of the differences in the engagement of students in each of the two eighth grade art classes. Through the interviews and review of data with the researcher, the art teacher clarified the intended purpose, actions, and outcomes of each lesson. Through this process, it was anticipated that the art teacher was more deliberate in choosing blended learning materials based on the data presented from previous lessons.

In exploring research question three, which asked how student-centered instructional strategies are implemented to engage students individually in a blended learning environment, it was expected that student-centered instructional strategies would engage students individually in the blended learning environment. This expectation was supported by research completed by Longo (2016) who found that blended learning provided students with an education that was personalized and differentiated. The research process allowed the art teacher to reflect on the strengths and weaknesses of the blended learning strategies used in the class and for individual student success. It was also anticipated that traditional methods of instruction were reflected on as the art teacher reviewed the data collected by the researcher. It was anticipated the art teacher's involvement in the data analysis process would result in the art teacher naturally considering best practices to benefit students in engagement and assessment of their learning.

Ethical Issues

Ramos (1989) described potential issues that may ethically affect qualitative studies. In this case study, the researcher is employed as a teacher in a similar demographic district as the one where the case study research was conducted. The researcher had no authority over the art teacher in the case study. At the time of the research study, the researcher held licensure as a K-

12 Art Education teacher and completed a master's degree program in Education Administration. The prior experience of the researcher was helpful in the study, providing an understanding of the material presented by the art teacher as a fellow practitioner in the same subject area. The prior experience of the researcher also could lead to bias, which is an ethical issue. Bias was avoided by the researcher through participant validation of the data and by using triangulation of the data sources. It was also helpful to understand the art processes and common methods used in art assessment.

A problem described by Ramos (1989) involved the researcher/participant relationship. The teacher and the researcher were employed as art teachers for over ten years. The researcher and the art teacher had an established working relationship and were familiar with each other's district expectations and reflective practices. The researcher inquired with the art teacher to reflect on the data collected or the blended learning method chosen. This was not overly threatening or intrusive because of the established relationship. It was believed that the art teacher was interested in improving the engagement of students in the eighth grade art classes and was willing to participate in the case study.

The researcher and the art teacher had a respectful relationship. There was no relationship present between the researcher and the art teacher beyond being familiar with each other working in similar field within a proximity. The researcher worked to balance the established respectful relationship and maintain an observer role in the classroom with occasional inquiry. The inquiry was used to clarify the information being documented by the researcher.

The researcher never witnessed a lesson led by the art teacher prior to the first observation in the case study research. The art teacher in the case study was free to leave the study at any time. A signed informed consent form was used by the researcher (See Appendix

D). Information gleaned from the case study was only shared with the art teacher and for the case study purposes. The superintendent from the district that employed the art teacher in the case study understood that the research completed for this case study had no impact or reflection on the teacher's qualifications or the district's policies.

According to Sanjari, Bahramnezhad, Fomani, Shoghi, and Cheraghi (2014), the researcher must try to minimize the possibility of intrusion into the autonomy of study participants. The researcher in this case study did not use any names or identifying information during the case study research. The art teacher was not identified by name anywhere in the collected data or written research. Students were identified in groupings such as art class one and two rather than individually. Demographics included in the research only divided students by race in two ways, students that reported as being white or students that reported being a race other than white. Students were also labeled in some areas of the research collected as male or female. The school district was only identified by general geographic location and population. The researcher respected privacy, supported open interactions, and avoided misrepresentations of information in the exploratory qualitative case study research.

Chapter 3 Summary

A qualitative exploratory case study design was selected to allow the researcher to study student engagement from a teacher's perspective through her actions, the intended purpose, and reflection on the outcomes of implementing blended learning strategies in an eighth grade art class. The research questions in this study were based on how blended learning strategies were used to engage eighth grade art students in the areas of imagination, investigation, construction, and reflection as discussed in the NCAS (2016). Data was collected based on three topic areas. The first topic area was classroom norms, routines, and expectations and how they support

blended learning strategies. The second topic area was the NCAS (2016) and how the art teacher emphasized the standards with blended learning strategies. The last topic area involved the student-centered strategies used to help engage individual students in the blended learning environment. The qualitative data collected from the two art classes focused on the art teacher's chosen instructional strategies that were observed by the researcher, course content, the art teacher interviews explaining the expected outcomes, and the art teacher's perception of the eighth grade art student's level engagement. Interactions between the researcher and the art teacher were important in this case study research. The interactions focused on discussing the validity of the findings, coding common themes that emerge, and formulating interpretations from the collected data. Reflective discussions on instructional practice and choosing specific blended learning strategies and their connections to the art teacher's perceived engagement of the students in the subject matter were common during the case study research. The lack of prior research found on the specific topic of blended learning strategies in an eighth grade art classroom and the relation to teacher perceived student engagement suggested to this researcher that the case study research was necessary and valuable to art teachers.

Chapter 4: Data Analysis and Results

Introduction

The purpose of this qualitative case study was to explore the actions of one middle school art teacher implementing blended learning methods in an eighth grade art class to determine what effects the art teacher perceived blended learning had on engagement of the students in the subject matter. A review of the research completed on blended learning discovered many areas of education implementing blended methods in subjects such as math and science to implementing blended methods in college courses (Longo, 2016; Moss & Fink, 2014; Zainuddin & Halili, 2016). The research completed through this case study investigated a gap in the research literature on blended learning in art classes providing art teachers with an overview of one teacher's actions, intended purpose, and reflections on implementing blended learning into an eighth grade art class (Patten & Newhart, 2018).

The qualitative case study was conducted at a middle school in a rural Midwest school district. One middle school art teacher served as the subject of the case study. The eighth grade art classes utilized a blended learning approach. Data collection consisted of classroom observations, interviews with the art teacher, and review of the documents used during the observed classes. Audio/video recordings and field notes taken during the observed classes, audio recordings of interview sessions, and analysis of documents used during classes provided many opportunities to gather data.

Three research questions guided data collected in the case study through observations, interviews, and document analysis. The three research questions were:

1. How are art classroom norms, routines, and classroom expectations impacted by the implementation of blended learning strategies?

2. How are the NCAS (2016) focused on in the blended learning instructional material?
3. How are student-centered instructional strategies implemented to engage students individually in a blended learning environment?

Description of the Sample

The setting for this case study was in a middle school in the rural Midwest. The data for the study was collected during the spring of 2018 and fall of 2018. The school district had a population of approximately 3800 students with 600 students enrolled in the middle school. Approximately 80 students enrolled in middle school identified as race other than white. The blended class had 25 students enrolled and the non-blended class had 24 students. Students elected to take the eighth grade art class but did not get to select whether they were in a blended or non-blended class. Table 1 exhibits a detailed demographic breakdown of the students present in each class during the observations.

The art teacher in this case study had approximately ten years of experience teaching art in middle school. All years were spent teaching in the same district. Prior to teaching in the studied district, the art teacher worked in an urban school district for approximately five years, teaching grades kindergarten through fifth grade. The Schoology LMS had been used in the teacher's current school district for six years. The teacher had attended multiple training sessions during her tenure on how to use the features in the Schoology LMS. The teacher mentioned in one of the interview sessions that she felt the Schoology LMS was a helpful organizational tool for art lessons. It was not required by the middle school administration for teachers to blend the learning in all the classes. The teacher also mentioned that approximately fifty percent of the teachers in the middle school used the Schoology LMS as a tool to blend learning in their

classes. The Schoology LMS was there as a tool for the teachers to use as much or as little as they wanted.

Students in the elective eighth grade art class each had their own school issued Chromebook to use for educational purposes. The students carried their Chromebooks from class to class throughout the day in a case made to protect the Chromebook from wear and tear. On a typical day, the students entered the room and would sit in their assigned seats, often chatting with friends until the bell rang. The eighth grade art class was made up of both male and female students; ages ranged from 12-14 years old. The students sat at rectangle tables; two students to a table. The tables were arranged in three rows across the middle of the room with five tables in each row. Both the blended and non-blended class were provided with Chromebooks, but only the blended class were required to bring the Chromebook to art class each day.

Classroom procedures were an important element in both the blended and non-blended art classes. When the bell rang at the beginning of every class, the art teacher directed students to start working on their warm-up drawing. The warm-up drawing was completed during the first five minutes of class. The teacher set a timer on an iPad to keep track of the five minutes. During this time the teacher was observed taking attendance and putting supplies out on the sharing table in the middle of the room for the project the students were working on that day. Students were observed during this time working on drawings based on the weekly topic. Many students completed the warm-up drawings prior to the end of the five minutes. The teacher reminded students multiple times during the five minutes to include value and texture in the drawings and to include a background image if they had time. When the researcher walked around during this time, it was typically observed that most students just did a quick sketch and did not follow the

teacher's prompts to add more value, texture, or a background. This observation was consistent in both the blended and non-blended classes.

The physical description of the room was very colorful and busy. The room had many posters of famous artist's work hanging on the walls, as well as class rules, and posters identifying the elements and principles of art. It was a very artsy environment with supplies on the countertops, clay projects on a cart, and two drying racks for drying paintings. A clay area was set up with two pottery wheels and a clay tools shelf. One corner of the room had a door with a sign above it that said kiln room. The teacher explained that that room was equipped with ventilation for the kiln. The teacher also kept all the clay glazing supplies in the kiln room. Another door led to a supply room where all the basic art supplies were kept organized in labelled bins. Two computer stations with a printer were set up in the classroom on the counter area near the windows for students who might not have their Chromebook with them or for students that needed to print a black and white image. There was space for students to store their sketchbook and projects based on which class period they were in. Many cabinets in the classroom also held art supplies for projects.

A small office for the teacher was also adjacent to the classroom. The teacher's office had a desk, a book shelf, a file cabinet, and a table and chair. Posters listing the National Core Arts Standards (2016) and copies of famous artist's works decorated the office area. Each of the rooms that were located off the main room had a door that could be closed. The main classroom included many book shelves. Some of the bookshelves had examples of art projects on them. Other book shelves held art books and magazines. The art room also had an interactive SMARTboard for teacher presentations and a whiteboard where the teacher listed project due

dates, the class schedule, and the weekly warm-up drawing topic for all three grade levels, sixth, seventh, and eighth.

After students finished the five-minute warm-up drawing, the teacher followed a schedule that was posted on the white board. The activities listed on the schedule were directions, demonstrations, studio work time, and clean up time. Both the blended and non-blended classes followed this schedule during every new lesson observed by the researcher. The Schoology LMS was used by the teacher during the directions and demonstration time in the blended class. The students also used the Schoology LMS during the directions, demonstrations, and studio work time in the art class. The non-blended class were given face-to-face directions and demonstrations.

The students were allowed approximately 30 minutes of work time to complete their projects during each class and then the teacher would announce clean-up time. Clean up time worked the same in both the blended and non-blended classes. Students moved around the room putting supplies away and placing the projects that they were completing on the designated shelves in the classroom. Students exited the room when the bell rang.

The selected middle school setting was representative of a common rural education setting where an art teacher would teach multiple grade levels of art to students using common technology resources provided in the school setting. In the middle school where the case study was conducted, the participating art teacher instructed eighth grade art students daily for 45 minutes for the duration of one semester, or 18 weeks. The researcher observed two sections of eighth grade art classes for nine weeks, two times per week for a total of 18 observations. The blended class was comprised of 25 eighth grade students and the non-blended class had 24 students enrolled. The blended class had an unequal distribution of male (9) and female (16)

students. The non-blended class was equally made up of male (12) and female (12) students. The students present in each observed class ranged from 18 to 24 students with an average of 22 students present during each of the art class observations. The classroom seating was organized with two students per table, three rows of tables and five tables in each row. This arrangement allowed for collaboration between students and an easy group work configuration.

Table 1 summarizes the class attendance by week. Students in attendance during each observed class played an important role in the number of students utilizing the blended method during each class session and the number of students that accessed the class materials outside of traditional class hours. This data was important when considering research question one, which focused on classroom norms, routines, and expectations.

Table 1

Number of Students in Attendance for Each Observation

Week #	Class	Total Students in Attendance
1	Blended	23
	Non-blended	24
2	Blended	22
	Non-blended	24
3	Blended	22
	Non-blended	21
4	Blended	23
	Non-blended	22
5	Blended	18
	Non-blended	20
6	Blended	20
	Non-blended	19
7	Blended	21
	Non-blended	19
8	Blended	20
	Non-blended	19
9	Blended	20
	Non-blended	20

The art teacher utilized multiple technology resources for the blended learning experience. These resources were housed in her online class in the learning management system (LMS) called Schoology. Schoology was the LMS that was selected by the middle school for the teachers to blend their traditional classes with an online learning experience creating a blended learning format. Students in the middle school were each provided with a school-owned Chromebook to use for educational purposes. A SMARTboard (interactive whiteboard) was installed in the classroom for the teacher and students to use as well. The SMARTboard provided a large image projected to complete whole class demonstrations or guide students through a lesson as a group. Students also used the SMARTboard to present projects and work on interactive art related learning games when they had all assigned work completed. A classroom set of iPads were also available for students to work on drawing apps when required for a lesson. The camera feature on the iPads were used when students were turning in a project or sketchbook assignment or to get a picture reference for an assignment.

Observations of the art class were completed by the researcher from the back of the classroom at a table used for project supply distribution. Before each class began, the recording device (iPad) was set up on an iPad stand and note taking supplies, including a notebook, pencil and eraser, were placed on the table. The iPad recorded both audio and video, but the audio was the primary source of information needed by the researcher. The researcher took field notes during each of the observed classes on the art teacher's methods of introducing the lesson in Schoology, the resources used, and the classroom procedural norms. The field notes worked to provide a more holistic view of the classroom norms, documenting common teacher procedures and student's activities based on instructions given by the art teacher. The recorded lessons were 45 minutes long making a total of 13.5 hours of classroom observations to transcribe. After every

two observations, the researcher transcribed each of the lessons in a word document. The highlighting tool was used to organize different themes by color coding them. Transcripts from the 18 observed classes provided ninety-eight pages of data. The transcribed information was stored on a flash drive used with the researcher's personal laptop computer.

Nine interviews were conducted with the art teacher to gain insight regarding the teacher's actions to implement blended learning methods into their art class and to obtain information on the teacher's perception of student engagement in this process. The interview sessions took place once per week for 45 minutes. The interview sessions were held in the art teacher's private office. The art teacher was given a copy of the recorded lessons for the week and a copy of the interview questions prior to each interview (See Appendix C). Twelve pages of transcripts were accumulated during the interview process. Most of the interview sessions lasted 30 of the 45 minutes session allowance. The protocol for each of the interview sessions was scripted (See Appendix E). Field notes were taken in a notebook during the interview sessions. According to Merriam (2009), field notes help to identify observational data such as the physical setting, verbal prompts, and initial researcher impressions. Field notes helped the researcher to also document points of interest to be inquired about at future interview sessions. Each interview yielded approximately one page of handwritten field notes. A similar procedure was used for the interview data analysis that was used for the observations. Interviews were recorded using an iPad. Analysis of the recordings included transcriptions and organization of the data into tables based on common themes. Common themes were then highlighted and placed into an excel document.

Documents collected from the art teacher related to the topic of the lesson and were housed in the Schoology LMS for the blended class. The non-blended class received the same

information for each lesson on paper copies. A total of 31 documents were coded based on themes connecting to the research questions. These documents included lesson transcripts, project introductions, steps to completing a project, quizzes, supplementary background information on artists or time periods in art history, vocabulary, and links to other resources on websites. These documents and websites were explained by the art teacher when a new unit was started. The documents included background information and prior learning connections to the new unit, as well as new unit information. The art teacher printed copies of the Schoology information for the researcher to see what the students were provided with in the LMS as well as giving the researcher access to a student view in the Schoology LMS.

An example of a lesson transcript is included in Appendix A. This lesson was on the topic of Optical Illusions. The lesson included the following information: a scenario, lesson duration, objectives, vocabulary, and the National Core Arts Standards (2016) that were met through successful completion of the lesson. The art teacher explained each of the components in the lesson transcript for the Optical Illusion lesson. The art teacher explained to the researcher in an interview session that, “The scenario is something that I use to gain the interest of my students. It places them in the role of a professional designer and gives them a job, task, or project to complete.” The lesson duration was explained by the art teacher as an estimate of how many classes it would take the students to complete the lesson. For the Optical Illusion lesson the duration was ten class sessions. The ten class sessions included time for researching the topic, taking a quiz on vocabulary, and preparing a planning sketch. Objectives of the lesson were listed in the next section on the lesson transcript to explain to students what they will learn through completion of the lesson. The next section in the lesson transcript including important and new vocabulary that student will learn in the lesson. A quiz on this vocabulary was given in

the Schoology LMS. Finally, the lesson transcript included a list of the National Core Arts Standards (2016) that were met through completion of the lesson.

Research Methodology and Analysis

A qualitative case study research methodology was chosen for this research. A case study was a good fit for this research. The case study was used to investigate the blended learning phenomena within a real-life setting. The case study was based on an in-depth study of one middle school art teacher through a descriptive and exploratory analysis of the teacher's implementation of blended learning. A thematic data analysis process was chosen for organizing the collected data in the case study based on Braun & Clarke's (2006) research. The elements included in the case study analysis section were collected through interviews, observations, and document analysis. A triangulation of data was recommended by Creswell (2014). The data collected in this analysis was organized into similar themes using suggestions from Braun and Clarke (2006) and Saldaña (2013). These themes helped the researcher to understand and sort important aspects of the data in an organized way.

Case study analysis. Braun and Clarke (2006) discusses thematic analysis in qualitative case study research. The process suggested by Braun and Clarke (2006) was used by this researcher to complete a thematic analysis. The researcher started by familiarizing herself with the collected data. This step immersed the researcher into the data through transcription of the interviews and observations. The process included listening to the recorded information and noting initial important content. The next step the researcher took was to create initial codes through extrapolation of interesting or meaningful portions of the conversations. The next step the researcher completed in the analysis was to start making interpretations of the codes. Data

was sorted into larger themes. Distinctions were made between codes, subthemes, and themes that were identified. Themes were then more deeply reviewed to identify distinctions. A unification of the data was completed through refining the themes and connecting them to the research questions. A final analysis of the themes included support that addressed the research questions directly. Braun and Clarke's (2006) six steps to complete the thematic analysis process was a helpful guide.

Saldaña (2013) also discussed a code method to analyze information by theme. Saldaña (2013) discussed using codes in qualitative inquiry with a short phrase (theme) is a summative way to capture language-based or visual data. Sorting the data by short phrases helped the researcher to make connections between the collected data and the research questions. The qualitative case study design worked well in this study to explore answers to the research questions. Qualitative research allowed the researcher to inform professional practice and facilitate an exploration of blended learning within its context using a variety of data sources.

Summary of the Findings

Techniques suggested by Merriam (2009), Braun and Clarke (2006), and Saldaña (2013) were used to analyze observation and interview transcripts. Merriam (2009) discussed a process using highlighting and notations. Braun and Clarke (2006) recommended a six-step process for thematic analysis, and Saldaña (2013) stated deciphering the core meaning in field notes is a form of descriptive coding. The following methods were used to obtain data from research field notes, classroom observations, and interviews. Colored highlighting was used to code information relevant to the three research questions. A table was created for each set of classroom observations identifying the classroom norms, routines, and expectations that were

observed during classroom observations. Table 2 details the researcher's observations relating to research question one from two of the 18 classroom observations.

Table 2

Norms, Routines, and Classroom Expectations in a Middle School Art Room Using Blended Learning Methods

Observation Number	Routine	Duration of Time for Activity in Minutes	Norms/Behavior Expectations
1 Blended	Warm-up Drawing	5 minutes	Students were directed to draw continuously from a prompt in their sketchbook. The teacher spent five minutes explaining the plan for the day and going through the location of the resources in Schoology. A guide sheet of the plan for the day was also posted in Schoology. Students were directed to take a formative quiz on the clay tools and the wheel process in Schoology. Students were then asked to create a mock wheel project using the iPads provided in the classroom and the Pottery wheel App prior to signing up for a turn on the pottery wheel. A picture of their mock wheel project needed to be submitted into Schoology to be graded as a formative grade. Students were directed by the teacher that there was 30 minutes of studio work time to complete the tasks.
	Directions/Demonstrations/Schoology Walk Through	5 minutes	
	Studio Work Time	30 minutes	
	Clean up time	3 minutes	
2 Non-blended	Warm-up Drawing	5 minutes	Students in the class that was non-blended completed the warm up drawing in their sketchbook. The teacher had a student volunteer do a demonstration on the pottery wheel. The teacher did a live demonstration the day before. Next, students took a formative paper and pencil quiz on the clay tools and processes. Students were then directed to draw a sketch of the project they intended to make on the pottery wheel in their sketchbook. Students had 30 minutes of studio time to watch the live demonstration, complete the quiz, and draw their sketch.
	Directions/Demonstrations	5 minutes	
	Studio Work Time	30 minutes	
	Clean up time	3 minutes	

After the two observed classes described in Table 2, an interview session was completed with the art teacher. Interview question number six of the research questions asked the teacher about her perceptions of the student's engagement during the blended class. This question was also asked about the non-blended class for comparison. When asked about the perceived engagement of the students during each of the routines during the blended class, the teacher reported the following information. During class time the art teacher believed students were perceived to be creatively engaged. On a scale of one to five with five being most engaged, the teacher rated the students at a four. A few students were off task or staring around the room, but many worked independently using the entire class to complete the designated tasks. Quiz scores collected by the art teacher on vocabulary and techniques used during the observed class gave the teacher data that the teacher believed proved students understood the vocabulary and techniques used in the unit. The 25 students were quizzed by the art teacher in the Schoology LMS. All the students completed the quiz with a score of eighty-five percent or higher.

When asked about the perceived engagement of the students during each of the routines, the teacher reported the following information from a class that was non-blended. During class time, the students were perceived to be creatively engaged and socially engaged. The teacher's perception of the atmosphere of the room included descriptive words such as loud and busy. On a scale of one to five with five being most engaged, the teacher rated the students at a three. Many students were off task and having unrelated social conversations. Some students worked independently and used the entire class to complete the designated tasks. Many students did not complete the assignment in the class time allowed. The non-blended class was also given a quiz to take using pencil and paper on the vocabulary and techniques used during the observed class. The quiz used the exact same questions as the blended class. The non-blended class had 24

students complete the quiz. The teacher reported that she calculated all the students in the non-blended class completed the quiz with a score of seventy percent or higher. It was the art teacher's belief that both classes did well on the quiz. The art teacher decided to keep data on the two classes for the rest of the school year to compare and see if the blended class will consistently score higher.

Throughout the nine weeks of data collection and subsequent analysis of the collected data, the data was reviewed many times. Data was reviewed during the initial observations, during the transcription of the observations, during the transcription of each interview, during documents analysis, during the process of identifying themes and developing categories for tables, and during a review of all collected data for connection to National Core Arts Standards (NCAS, 2016). Codes were added to the observation transcripts identifying when the teacher made comments during each class session that were connected to student's engagement during the class.

Merriam (2009) discussed an identifying characteristic of collecting qualitative data is the progressive way in which data analysis occurs concurrently with data collection. As new codes (themes) were identified in the observation transcripts, interviews were reviewed for the same codes or themes. Internal validity developed through the verification of similar themes in observation transcripts, field notes, interviews, and document analysis. Yin (2014) suggested that transcription reliability compared with the subjectivity of collected field notes and interviews are necessary to have validity in qualitative case study research.

Upon completion of the final interview and observation, the transcripts of all the observations and interviews were reviewed again. The purpose of this final review was to condense the volume of information collected to make connections to the main research

questions. Columns in an excel spreadsheet were set up in the following manner: the research questions were listed on the horizontal axis and the vertical axis had columns for the observations, interviews, and document analysis. Codes from the observations, interviews, and document analysis to the themes present in the research questions were counted. Research question one had 143 occurrences of codes present related to the main theme of art classroom norms, routines, and classroom expectations established and reinforced to support the implementation of blended learning strategies. Research question two had 38 occurrences of codes related to NCAS (2016) focused on in the blended learning instructional material. Research question three had 119 occurrences of codes related to instructional strategies implemented to engage students individually in a blended learning environment. This method of condensing the gathered information into data that could be quickly accessed in an Excel document was helpful in identifying patterns and common themes in the qualitative case study research.

Presentation of the Data and Results

The results are presented to address the purpose of the researcher's data collected relating to the art teacher's perceived engagement of the students in an eighth grade art class guided by the three research questions in the qualitative case study research. Three research questions guided the data collection and analysis. The findings will be presented based on the research questions in the following order:

1. How are art classroom norms, routines, and classroom expectations impacted by the implementation of blended learning strategies?
2. How are the NCAS (2016) focused on in the blended learning instructional material?

3. How are student-centered instructional strategies implemented to engage students individually in a blended learning environment?

The following themes emerged based on the data analysis process. Art classroom norms and routines reinforce the implementation of blended learning strategies in an art classroom. The NCAS (2016) were infused in all the blended learning instructional material in this case study. Many options were available and used for student-centered instructional strategies to engage students in a blended art classroom. Each research question will be discussed and themes that emerged connecting to the research questions will be explored.

Research question one. How are art classroom norms, routines, and classroom expectations impacted by the implementation of blended learning strategies? Research question one required several observations for patterns to emerge and to identify themes. Eighteen observations were completed. Nine of the observations were in a class with blended learning strategies being implemented. The other nine observations were in a class that did not use blended learning strategies. Interviews with the art teacher provided feedback on norms, routines, and the teacher's expectations during the classes. During the interview sessions, the teacher also provided clarity on what strategies she believed to be working and not working in the blended and non-blended classes. Themes emerged relating to this question on the topics of norms, routines, and strategies.

Art classroom norms and routines reinforce the implementation of blended learning strategies in an art classroom. Norms existed in the art classroom pertaining to how the students were expected to behave. Marzano and Pickering (2011) discussed how establishing norms in a classroom is supportive of student engagement. The art teacher established norms at the beginning of the school year and went over the norms with students. Established norms help to

keep the class functioning at a level so that all students are comfortable in the art class environment. The following norms were listed in the art teacher's syllabus.

- Remain quiet during warm-up drawing time.
- All students deserve quiet time to be creative and express themselves through drawing.
- Keep voices off until the teacher is finished with directions.
- It is not polite to blurt in art class.
- Studio work time is an art student's time to get work completed.
- You may quietly chat during this time.
- You may also ask for help or collaborate with your peers if you are not off task.

Established routines supported both blended and non-blended learning environments. The art teacher was very cognizant of using a set routine in the classroom. The art teacher commented that the routine way she conducted the class helped her to identify patterns in each class that might need to be changed or stay the same depending on the positive or negative results. According to the art teacher, "students in my middle school art classes, both blended and non-blended, benefit from structure in the class routine." The art teacher went on to explain that structure in her class helped with reinforcing individual student expectations such as due dates, goals, time management, and standard classroom procedures.

Students were given prompts during the class to keep on task. When starting the warm-up drawing, students were prompted with information on the topic of the day and then told to draw continuously for five minutes on that topic. The art teacher often did some quick brainstorming with the students prior to starting the warm-up drawing. For example, one topic was apple orchards. The art teacher stated "Apple orchards are often more than just rows of trees. What else can we see at an apple orchard?" Students responded by raising their hands and waiting to be

called upon. One student stated, “I visited an apple orchard last weekend. I saw so many types of apples for sale in a barn along with apple cider donuts and apple turnovers.” The student’s answers during the brainstorming session helped to inspire their daily warm up drawings. Students were also prompted each class period to place the date and the topic for the warm-up drawing in their sketchbook with their warm-up drawing. A timer was used on the teacher’s iPad to make sure the five minutes was exactly timed every day. This was a routine event during the first five minutes of every class conducted by the art teacher, blended and non-blended.

The next observed routine used by the teacher were directions and/or demonstration time. This always followed the warm-up in both blended and non-blended classes. During this time in the blended class, students would log into their Schoology course. The teacher started the class by stating, “Take out your Chromebooks and we are going to go through the agenda and directions for today’s class.” The directions and agenda for the day were set up as a page in the learning management system. A discussion section was attached to the agenda for students to ask questions or make comments about the assignment. This discussion was used by the teacher and the students to replace the typical raising hands for a question atmosphere. The norm for the class was to have at least one comment or question from each student during each class. One comment from a student was, “When will this assignment be due?” Another student asked, “Do we need to submit our quiz before moving on to setting up the perspective house?” Most questions the researcher observed in the discussion were for clarification purposes and students answered other student’s questions. Occasionally, the art teacher commented in the discussion as well to further answer a student’s question or to help clarify the directions for a student. During an interview session, the art teacher explained that she wanted students to feel comfortable writing about their progress on assignments daily and getting other student’s opinions on their

work. The art teacher also explained that a collaborative approach to problem-solving was typically seen in the discussions. For example, it was not uncommon for a student to ask a question in the discussion area and three or more other students to respond with possible answers.

Another routine established by the teacher in the class schedule was studio work time. Students would have approximately 30 minutes to work on the assignment for the day. During most classes, this time was spent continuing to make progress on a multiple day project. Students worked until prompted by the teacher to begin to clean up. Clean up time was typically the last three to five minutes of each class. Students were also required to take a progress picture with an iPad for their progress portfolio in Schoology. Student dismissal from the art class was by table upon the bell ringing and the teacher's approval of the student's seating areas clean-up duties.

The class that was not using blended strategies followed the same basic routine as the blended class, but they did not have the Schoology resource. The teacher verbally went over the assignment and agenda for the day and then students had studio work time. During studio work time, if a student had a question, they would raise their hand to get assistance from the teacher. Many side conversations were observed during studio work time. A few students were observed talking about their weekend, another student stated that they were "not a good artist." The teacher promptly replied, "Yes, you are and no negative talk in my class!" The teacher often had to prompt students to stay on task. While interviewing the art teacher, it was revealed to the researcher that the art teacher felt "The class that worked in the blended Schoology LMS worked more effectively and had greater successes with the outcomes of their projects." The teacher also commented that the non-blended class seemed to be louder and more active during studio work time, which in her opinion resulted in more adverse behavior situations in those classes. Clean up

time was announced during the last three to five minutes of the non-blended class. During this time, students were required to fill out an exit slip commenting on their progress for the day or listing any unanswered questions. These were placed in a basket next to the door on their way out.

Classroom expectations are closely related to the norms and routines in the art class. Students are expected to come to class prepared. According to Harlacher (2015), rules stem from expectations. Specific supplies are expected to be brought to art class each day, such as a pencil, eraser, sketchbook, and Chromebook. During art class, students are expected to raise their hand for assistance and use the Schoology LMS resources to assist with projects. The art teacher was expected to provide students with additional materials to complete projects, prepare lessons, and assist students during class time.

Research question two. How are the NCAS (2016) focused on in the blended learning instructional material? During the document analysis and interview sessions, the researcher was able to discover connections to the NCAS (2016) in the blended learning instructional material. The documents provided to the researcher were the agendas, directions, and resource lists that the teacher used in Schoology for each unit. Specific NCAS (2016) were listed on these documents relating to the topics covered in the unit. The following theme emerged from the case study research on this question.

The NCAS (2016) were infused in all the blended learning instructional material. The NCAS (2016) were identified for the blended class in the Schoology agenda, directions, and resources. Each document provided to students in the learning management system, Schoology, were labelled with the connections to specific art standards in the NCAS (2016). The teacher listed the standard numerically within the text and then linked to the NCAS (2016) website with

a hyper link on the numerical standard. The teacher explained this further in an interview session, stating that “The students typically do not access the linked standards.” The art teacher stated, “I include them for parents and administration to see that my students are meeting the art standards in each of the units.” She explained that this process was personally helpful because she could easily see if she was missing a standard completely in her instruction or if she was spending too much time on another standard. The identification of standards was not present in the documents used in the non-blended class. The teacher discussed how it was more difficult to track whether students were being exposed to all art standards in the non-blended class.

The teacher expressed the importance of keeping her art class creatively focused and using the NCAS (2016) as a guide to inform herself that she was teaching her student’s skills that were on a national level being taught to students all over. The blended class was a tool for the teacher to assess her use of the standards in each lesson. The teacher stated in an interview session how “the conversations in the discussion section of the blended course in Schoology were very rich with vocabulary and participation was one hundred percent each day.” Students were displaying their understanding of the NCAS (2016) verbally and visually in the blended class. She compared this to the non-blended class, where often she claimed students would be off task and not making much progress on their projects. The art teacher also explained that often the non-blended class exit slips would not be filled out. According to the art teacher, despite having the same units completed in both the blended and non-blended classes, very different results or achievement levels were seen. Achievement levels on quizzes from both the blended and non-blended art classes were shared with the researcher during the interview sessions.

Research question three. How are student-centered instructional strategies implemented to engage students individually in a blended learning environment? During document analysis it

was evident that learning was differentiated by offering multiple resources. Students had many options to choose from in each lesson. These options included quizzes, games, and links to different websites that offered information on the lesson including videos. A variety of each of these options existed in the lessons in the Schoology LMS to meet the needs of different learning styles such as auditory, visual, analytical, and kinesthetic. The following theme emerged when researching question three.

Many options were available and used for student-centered instructional strategies to engage students in a blended art classroom. Student-centered instructional strategies included in the Schoology course were based on methods such as cooperative learning, discussion, games, brainstorming, presentations, inquiry based and project learning. Students were given an agenda in Schoology every day stating the goals of the class. These goals were broken down by time and routine. For example, studio time was a routine activity during class with 30 minutes of class time allotted for working on a unit activity. Students were provided with resources in Schoology that prompted them to use student-centered instructional strategies to interject their own creativity into the unit they were working on. One example of this was a unit on drawing a hand with charcoal. Students went through an inventory checklist included in Schoology of likes and dislikes that provided them with a suggestion of what they could include in their hand drawing to make it more personal and unique to their own preferences. This inventory checklist was just one resource that was provided with the hand drawing unit. Another resource was a video tutorial that showed an artist drawing a hand. Students were able to follow along with the artist and be guided through the hand drawing process. One student commented during class, “The videos are my favorite part of art.” The student went on to explain, “I can pause the video anytime I want to, and I can’t pause my teacher when she does a demonstration.” A discussion was available in

Schoology for students to ask questions or seek out suggestions from their peers. A matching game was included in the resources that gave students a chance to practice the art vocabulary used in the unit. The matching game had vocabulary words listed on one side of the screen and definitions of the vocabulary words on the other side of the screen. Students clicked and dragged the vocabulary word over to the definition. If the student was correct, they earned the assigned points. The final score was recorded in the Schoology LMS as a formative assignment.

Students were required by the art teacher to earn a set amount of formative assignments for each unit they were studying in the blended class. The unit on Optical Illusions required students to complete five formative assignments worth ten points each. These formative assignments were selected from a menu of eight options. Students could choose to complete a matching vocabulary game, a Quizlet activity, an artist trading card, a crossword puzzle, an extra planning sketch, a brainstorming worksheet, an artist fact worksheet, or a medium exploration challenge. These formative assignments were quick activities that the art teacher explained, “were meant to provide students with additional options to reinforce the learning for the unit.” Students in the blended learning class seemed to like the choice of the formative assignments. During each studio work day, it was observed that students would spend approximately five to ten minutes completing one or two of the quick formative assignments. The blended learning class was often described by the art teacher as “productive” and “busy.”

The non-blended class did not have the same structure for formative assignments. Students did not have all the options available to them that the blended class had to choose from. Students in the non-blended class typically were given an exit slip with a quick question to answer as they were leaving class or a paper and pencil vocabulary quiz before they started their project. According to the art teacher, “the non-blended class did not engage in the formative tasks like

the blended class.” The art teacher often commented that “blending the art class seemed to open the doors for many student’s creativity.” It was also stated by the art teacher that the non-blended class “was not as enthusiastic about the summative projects or the formative assignments” when comparing them to the blended class.

Students were offered a variety of resources that they could use in the blended class to engage their individual needs. One resource that was noticed by the researcher while taking field notes was the option for students to digitally complete assignments on an iPad. This option was chosen by a student with autism to complete the charcoal hand drawing assignment. The student was challenged by the texture of the charcoal and struggled with the medium. After reading through the agenda for the class and looking at the resources provided for the unit, the student was able to choose to complete the same assignment as other students by using an app that allowed the student to create a charcoal effect in his digital hand drawing.

In the same lesson on hand drawing, another student was observed using a resource in Schoology that took the student to a website with examples of many famous artist’s drawings of hands. Here the student was able to see different approaches to hand drawing throughout art history. The student commented to the researcher that, “So many of the artists in the examples were drawing hands realistically but look at how Picasso drew the hands abstractly.” The student was using the zoom feature on the website to zoom into an area where the hand was placed to help to see all the detail in a larger version. The resources in the Schoology learning management system were often suggested by the teacher when students were struggling with getting started and for inspiration. The teacher would prompt students to look at certain resources to help them. Each unit the researcher observed students working on included 20 or more resources in Schoology. Through the nine observations of the blended learning art class, the researcher

observed many ways that blended learning could engage students individually using student-centered strategies.

Students in the non-blended class had resources available to them in the classroom such as posters, books, and magazines. They did not have the option to complete assignments on iPads or Chromebooks. The art teacher did use technology with the non-blended class for units on photography and graphic design, but the class did not use technology for most projects. A student in the non-blended class was observed using a reference book on the artist, Mary Cassatt. The student was asked by the art teacher to find a picture of a child's hands in the book to use as a reference for an assignment on drawing hands. The teacher claimed, "A child's hands would not have as many lines in them and they would look smoother." The student found a picture to look at in the book as a reference, but the student responded to the teacher that the hand was so small in the picture that "it was hard to see."

It was important for the researcher to note in the observations of both the blended and non-blended classes the way that absent student work was handled. Students that were absent in the blended learning class were expected to check the Schoology LMS and complete any assignments they could from home. One student, after being absent for two days, told the art teacher that she had completed the formative assignments while she was at home, so she could catch up on the summative project portion of the unit when she returned during class time. The student also explained that she participated in the discussion forum while she was at home, so she would receive points for that also. Students in the non-blended course did not have this option available to them and had to arrange to make up missing class sessions during a study hall time or before and after school.

Chapter 4 Summary

The purpose of this qualitative case study was to explore the actions of one middle school art teacher implementing blended learning methods in an eighth grade art class to determine what effects the art teacher perceived blended learning has on engagement of the students in the subject matter. The case study was conducted in the classroom of a middle school art teacher in rural Midwest. The teacher was an art instructor for grades six, seven, and eight. Data was collected through nine interviews with the art teacher, observations of 18 art classes, and document analysis of 31 documents. Codes were created during data analysis and themes emerged related to each research question.

The three themes that emerged were based on the following three statements. Art classroom norms and routines reinforced the implementation of blended learning strategies in an art classroom. The NCAS (2016) were infused in all the blended learning instructional material in this case study. Many options were available and used for student-centered instructional strategies to engage students in a blended art classroom. These three themes were supported by the triangulated data collected during interviews, observations, and document analysis.

The art teacher in the study perceived the blended art class to be more engaged in the art summative projects and the formative assignments. The art teacher also shared quiz scores that the art teacher believed were proof of students learning the vocabulary and techniques in both the blended and non-blended classes. The art teacher decided to collect data like this throughout the entire school year to help make an informed decision for the next school year about having all classes blended or non-blended. Based on the data collected and presented in this chapter, the next chapter will include discussions on the conclusions and recommendations about blended learning in middle school art class and the teacher perceived engagement of the students.

Chapter 5: Discussion and Conclusion

Introduction

Three main themes emerged in this qualitative case study. The themes were discovered while gathering information during observations, interviews, and data analysis based on research questions guiding the case study. Art classroom norms and routines reinforce the implementation of blended learning strategies in an art classroom. The NCAS (2016) were infused in all the blended learning instructional material in this case study. Many options were available and used for student-centered instructional strategies to engage students in a blended art classroom. In this chapter, the researcher discusses each of the themes, applies the literature to the case study findings, and forms conclusions from the findings. The practical implications of the case study research findings are discussed and limitations of the study are noted. The researcher concludes the chapter with recommendations for future research about blended learning in middle school art classrooms.

Flipped classrooms, blended learning, adaptive learning, and learning management systems (LMS) have impacted art education (Osterlie, 2018). In the current study, technology impacted the way lessons were presented by the art teacher and the way students learned. In a survey conducted by Deloitte (2018), it was reported that students wanted to have access to learning outside of the classroom on their phone, tablet or laptop. To make this happen for students, the art teacher in this study worked to implement the blended learning method into the eighth grade middle school art class. The art teacher matched content to students to facilitate more personalized learning environments for the students. This research focused on how a middle school art teacher utilized blended learning in an eighth grade art class. The art teacher created an environment where students participated actively in the learning. The students had a

variety of choices to complete each lesson of study. The art teacher facilitated this process through implementation of a blended learning environment in the Schoology LMS. The blended learning environment offered art students an opportunity to interact with a variety of learning materials on a computer or tablet.

Summary of Results

The process of implementing blended learning in middle school art class involved the educator transforming traditional thinking on the way art education is delivered. Mezirow (1991, 1997) recognized the way in which personal limitations are influenced by culture and biography and how people are provided the ability to think autonomously in transformational learning theory. Thinking autonomously in the role of a middle school art teacher was essential for reflective, long-term personal learning. Meaningful changes were made in the learning process for students in the blended middle school art class. Mezirow (1991) developed phases of transformational learning, which were essential for personal recognition and reflection on education practice. The art teacher observed in this case study transformed the art classroom from traditional delivery methods to blended learning methods while utilizing Mezirow's (1991, 1997, 2000, 2003) Transformative Learning Theory.

The researcher in this case study believed that the transformative process was understood through the identification of changes in the methods used by the teacher to implement a blended environment. Fullan (2011) discussed change as a more lasting event when it is fully understood, thus the researcher in this study wanted to fully understand the art teacher's choices in the blended classroom using observations of a non-blended classroom for clarity and understanding. The non-blended class was observed by the researcher to see what the blended class would look like without the use of technology necessary to create a blended environment. The re-searcher

explored the transformation process in the blended learning class using one art teacher's perception of how she believed her student's engagement had increased due to the blended methods implementation. Three research questions guided the researcher's data collection during the qualitative case study:

1. How are art classroom norms, routines, and classroom expectations impacted by the implementation of blended learning strategies?
2. How are the NCAS (2016) focused on in the blended learning instructional material?
3. How are student-centered instructional strategies implemented to engage students individually in a blended learning environment?

Discussion of Results

The art teacher that participated in this case study provided documents for analysis that were distributed to students in the LMS, Schoology. Interview sessions were completed discussing topics such as perceived student engagement, norms and routines, and blended learning strategies used to support individual student engagement that were observed in the classroom observations. The researcher manually coded and analyzed the data that was collected from the document analysis, interviews, and observations. The researcher interpreted the analyzed data and made three conclusions.

The researcher noticed that the structure of the classroom including the norms, routines, and classroom expectations all supported the success of the blended learning environment. Students knew the class routine and the expectations of the teacher regarding their behaviors and completion of assignments. It was noted by the researcher that most students in the blended learning class observed were always on task and knew where to find resources for their lesson.

Clear structure and routine in the classroom were noted in creating a vibe in the blended class where students seemed successful in their individual learning.

Another conclusion that was evident to the researcher was that the NCAS (2016) were easy to apply to lessons housed in the Schoology LMS. The teacher was able to easily extrapolate data from the LMS and make conclusions based on results of student quizzes, discussion comments, and other assignments completed in the LMS. It was evident to the researcher during conversations with the teacher in the interview sessions that there was no question about whether the participating teacher was meeting the NCAS (2016) in her lessons. The lessons in Schoology were cross referenced with the standards and the teacher could easily find the data to prove that her students were meeting the standards for art.

The third conclusion made by the researcher regarded engagement in the classroom based on blended learning. It was evident to this researcher that student's engagement increased when they worked with the blended course content. Engagement was noticed during the observation of each class. Students were interacting with the material. They were busy and excited to get to work. These were visual clues noted by the researcher. The researcher also noted less disruption in the blended class and better behaviors when compared to the non-blended class. The participating teacher in the research study also agreed that students were more engaged in the blended class.

Common themes were identified in the coded data, based on triangulation that connected to the conclusions made by the researcher. The first theme was norms and routines reinforce the implementation of blended learning strategies. The second theme was the NCAS (2016) were infused in all the blended learning instructional materials in the case study. The third theme was many options were available and used for student-centered instructional materials in this case

study. These themes emerged based on the diligence of the participating teacher to create a holistic blended learning environment where students found individual interests that engaged them in the learning material.

Discussion of Results in Relation to the Literature

Student engagement and blended learning approaches in higher education have been recognized as playing an important role in student engagement and learning (Vaughan, 2014). Vaughan (2014) suggested that collaborative learning incorporated into the blended learning course design increased student engagement. Collaborative learning was noted in this case study incorporated in the blended learning class. Opportunities for collaborative learning existed in the blended learning class within the discussion section in the Schoology LMS. The discussion section of the LMS allowed the art teacher to assess student comprehension of the learning material and create opportunities for collaboration within the Schoology LMS. Downes and Bishop (2012) explained that engaged students are visibly delighted, attracted, and persistent when it comes to completing their class work. The students in the blended learning class were observed by the researcher and the participating teacher as being visibly engaged in their learning during every class. Based on the findings in the case study on blended learning in middle school art, this researcher agreed with the findings of the past literature.

Research question one. Classroom norms and routines are necessary in blended learning. The classroom norms and routines are established by the art teacher with the intent of supporting the blended learning environment. The first research question asked how art classroom norms, routines, and classroom expectations are used to support the implementation of blended learning strategies. Lemley et al. (2014) found that classroom norms, routines, and expectations support the implementation of blended learning methods and increased teacher

perceptions of student engagement. Classroom norms and routines were established by the art teacher in the study with the intention of contributing to student's confidence in understanding expectations. Strayer (2012) discussed challenges that exist when changing the delivery method of information in education. According to Strayer (2012), once the blended learning environment is developed in a class, any modifications that are necessary can easily be adopted. The modifications that are made in blended learning implementation process lessen the number of challenges that may exist.

Connecting classroom norms, routines, and expectations to support a blended learning environment was a goal of the art teacher in the case study. The researcher interpreted this goal as a positive attribute in the success of the blended learning environment. Creating a seamless system where students understood the routine and expectations of the blended environment and were able to individually and collaboratively work was one way in which the art teacher participant in this case study provided insight into the transformation from traditional art instruction to blended art instruction. This researcher believed it was necessary for the art teacher to create a system that included routines understood by the students to develop a structured environment for the blended learning to take place. A sub theme emerged aligning with research question one regarding the importance of student confidence and independent learning opportunities in blended learning. It was noted by the researcher that students that were successful in the blended learning environment were confident and able to handle working independently within the Schoology LMS.

In traditional and blended classrooms, the art teacher has norms and routines that are practiced. According to Dembo and Eaton (2000), teachers in a traditional classroom are expected to lead the class as a group by providing a framework for students to look to the teacher

for the answers. A blended learning classroom can meet the individual needs of individual students and the varied learning styles of students (Longo, 2016). For example, Swan et al. (2015) discussed the numerous benefits of a blended learning environment for gifted students. It was noted by the researcher that students were able to work beyond the basic requirements for the assignments. Many opportunities for students to expand their learning were incorporated into the Schoology LMS in the resources section.

The art teacher in this case study stated in an interview session that it was her goal to create a learning environment to meet the needs of her students individually by offering a variety of resources in the LMS to increase student engagement and interest with the subject matter. It was noted by the researcher that the art teacher did meet the needs of individual students through the resources section of the LMS which offered students many opportunities to expand upon the curriculum in each lesson. Meeting the individual needs of students was discussed by Swan et al. (2015) in the research on blended learning for gifted students. Swan et al. (2015) found that gifted students were successful with accelerated curriculum delivered in a blended learning approach.

Consistency was also a common topic in the interview sessions with the participating teacher relating to research question one. The art teacher mentioned that the consistency of having a structured classroom routine supported students learning. The art teacher talked about how students did not feel lost in the blended class and they had a variety of technology tools and resources to guide them through the unit. According to research completed by Zainuddin and Halili (2016), 21st century technology delivered instantaneous information accessible through a variety of technology tools. The art teacher in the case study compared the class with a variety of technology tools and resources in the blended class to the non-blended class where many

students struggled to stay on task during the class despite using a similar format for the structure of the class. The art teacher claimed not having the information in the Schoology LMS as a resource to guide students seemed to affect the success rate the art teacher witnessed in student completion and work quality. The researcher observed students in the non-blended class often showing behavior issues. It was concluded by the researcher and the participating teacher that it was common for students in the non-blended class to be off task or display a disconnect to the lesson. The researcher interpreted the Schoology LMS including supplementary resources supported the individual learning needs of the students in the blended middle school art class which resulted in less behavioral issues.

Research question two. The NCAS (2016) are purposed with identifying student learning and to driving improvement in the system that delivers that learning. The art standards encompass the key concepts, processes and traditions in the study of art. Willerson (2018) discussed the art standards having philosophical and lifelong goals as the foundation. According to Willerson (2018), the art standards are a framework that was developed to improve art education using overarching standards, skills designed by discipline, and discipline-specific assessment tasks. Art teachers use the art standards to guide their teaching at specific grade levels.

According to Patton and Buffington (2016), few studies document how standards of learning are applied to technology in art education. This research case study addressed this topic in research question two. The second research question asked how the NCAS (2016) were focused on in the blended learning instructional material. It was observed by the researcher during classroom observations and document analysis that the art standards were being met in numerous ways in each unit. The researcher interpreted the standards being met as significant.

Every unit observed by the researcher included students generating and conceptualizing artistic ideas, organizing their ideas, and completing a work of art. Critical thinking and problem-solving skills were also included in the activities observed by the researcher. These observations were concluded by the researcher to reflect a successful use of the NCAS (2016) within the constraints of the blended learning environment. According to The Partnership for 21st Century Learning (2015), practicing critical thinking and problem-solving skills leads to the ability to use inductive and deductive reasoning. Completing these common steps in the middle school art class met three of the NCAS (2016).

The art teacher discussed in an interview session how it was typical for a unit to cover five to ten of the NCAS (2016). The researcher and the participating art teacher agreed that when using the blended learning strategies, the ability to keep track of which art standards were being met in each of the units was simple to assess. The NCAS (2016) that were met in each unit were identified in the document used to introduce the unit in the Schoology LMS. Every unit completed by the art teacher had an introduction page in the Schoology LMS that explained the new unit including vocabulary, art movement information, specific artist information, objectives of the lesson, and steps to complete the project. It was observed by the researcher during studio work time, students could access this information independently whenever necessary. The ease of accessing information was discussed as a benefit of the blended class by the researcher and the participating teacher. Students that were absent could also access the Schoology LMS on their school issued Chromebook from home if they had internet access.

Beyond the introduction page in the Schoology LMS, the art standards were listed on individual resource pages in Schoology that were created by the art teacher. The art teacher kept a checklist with a compilation of all the standards for the eighth grade in a Google document.

This checklist was used to keep a running record of which standards were used in every single unit introduced to students by the art teacher. The art teacher, in an interview session, discussed how the checklist was helpful when she had curriculum meetings with the principal where she needed data on the art standards being met in her classes. She said the standards being attached to each unit also helped when she had conferences with parents regarding their student's progress in her art class. It was noted by the art teacher that many of the standards were met multiple times during the nine weeks (one quarter) or the 18 weeks (one semester) of the eighth grade art classes.

The NCAS (2016) were focused on in the art units introduced by the art teacher in the case study. The art standards served as a guide to make sure the students were achieving goals set at the national level in the middle school art class. They also served as a tool to ensure the teacher was providing high quality lessons to her students. The standards were often referred to in curriculum meetings with the principal as tools to drive improvement. Parents were informed of the NCAS (2016) that the students were meeting in art class during parent-teacher conferences. The NCAS (2016) provide a framework that acts as a building block in a quality arts education program.

Driving improvement in the art class was a common theme that emerged from the data collection in this case study relating to research questions two. Improvement was seen by the art teacher based on the evidence seen in student production and academic gains. Another theme that emerged related to the NCAS (2016) was the consistency of multiple NCAS (2016) embedded in the lessons being met. The NCAS (2016) are suggested standards for teachers to meet at specific grade levels. It became common for the researcher while sorting through the data to find the standards being met multiple times in the nine weeks of the research study. The

blended learning classroom in this case study, from observations, interviews, and document analysis focused on the NCAS (2016) in an efficient manner.

The non-blended class was more difficult for the researcher to analyze when determining the completion of the NCAS (2016). The documents used in the non-blended class that were given to the researcher also had the NCAS (2016) that they met listed on them. Quizzes, posters, studio work time, and face-to-face discussions were more difficult to analyze relating to the NCAS (2016). The researcher needed clarification from the art teacher during an interview session to help categorize individual documents and artifacts matching them with the NCAS (2016). This process became a standard part of interview sessions with the researcher and the art teacher.

Research question three. Student-centered instructional strategies were essential in this case study on blended learning. The third research question for this case study asked how student-centered instructional strategies were implemented to engage students individually in the blended learning environment. A theme emerged from data collection related to research question three. The effect of differentiation on student learning was a common theme emerging from research question three. According to the data collected from the teacher interviews, student-centered instructional strategies were perceived as a positive influence in a blended learning environment. In an interview with the art teacher, she discussed the connections the students had to student-centered resources she used in the LMS Schoology and how they were meeting the student's individual needs. The researcher and the participating art teacher discussed how differentiation within the classroom to make lessons work for all students was an important goal for the art teacher. It was concluded by the researcher that creating opportunities for differentiation to meet the needs of all students was a benefit to the blended learning approach.

The classroom had a population made up of students from many backgrounds. Providing multiple resources in the Schoology LMS that students could access based on connections to their own interests was a massive benefit when making comparisons between the blended and non-blended classroom.

Blended learning strategies give students access to resources and scenarios based on real-life and problem-solving skills (Kong et al., 2014). Kong et al. (2014) supported teachers changing their pedagogical practices to obtain real-life and problem-solving skills. Swan et al. (2015) discussed how adding differentiated instruction into a class through a blended learning method could meet the needs of gifted students. The art teacher in this study used differentiation through blended learning to gain the interest of students that typically would not find interest in the topic. Adding numerous varied student-centered instructional strategies that grab the attention and interest of many students supported what the teacher perceived as positive engagement with the students.

The art teacher introduced a lesson on the impressionist art movement during one of the classroom observations. There were many student-centered resources used in this lesson. The art teacher went through the information provided in the Schoology LMS step by step with the students. The introduction to the lesson included steps to complete a painting resembling the impressionist style. A video link was included that showed the teacher mixing paint to match the colors needed for the project. A separate video included with the lesson showed the art teacher making the brush strokes resembling the technique used by the impressionist artists. Another page in the Schoology LMS included vocabulary connected to the lesson on impressionist art. This section supplied students with a link to a matching game that was based on the vocabulary from the lesson. One link on this page took students to a website with the history of impressionist

art and background information on artists belonging to the impressionist movement. Students could also access a word search and a crossword puzzle based on the impressionist topic from the resources page.

A collaborative online game called Kahoot was also included as a resource for students to practice their knowledge of the impressionism topic. Two quizzes on the history of the impressionist movement and artist information were also part of the pages included in the impressionism lesson. A discussion on the topic in the Schoology LMS was included for student questions and problem-solving collaborations.

The teacher in this case study felt all students were actively engaged in the resources provided in the Schoology LMS. It was the art teacher's perception that the information provided in the LMS also helped students to create a successful final project. Research by Longo (2016) supported the art teacher's claim that instruction was differentiated through personalized learning in the blended art classes. Longo (2016) claimed differentiated instruction is achieved through personalized learning in a blended learning approach. The researcher believed that offering differentiation in the materials and learning strategies in the blended class provided the students with more responsibility for their own learning with the teacher acting as a guide or facilitator. This conclusion could have implications for art teachers, schools, and parents, challenging the traditional structure of the art classroom.

Limitations

Limitations existed in this qualitative case study. The research was completed with the perspective of one middle school art teacher. Qualitative case studies can be criticized for providing information that can be difficult to quantify or information that is subjective (Marshall & Rossman, 2011). A qualitative case study design in this research examined the choices an art

teacher in the rural Midwest as she implemented blended learning into her middle school art class.

Four limitations were identified in the study: (a) focus on one blended art class, (b) focus on one middle school using one LMS, (c) time constraints, and (d) focus on one art teacher participant. Focusing on one art class was a limitation in the study. The data gathered from observing one art class for 18 class sessions was large and allowed the researcher a holistic view of the classroom. However, focusing on one classroom may have limited the variety of information that could have been gathered through observing more than one blended art class.

Focusing on one middle school using a specific LMS was another limitation in the study. Due to the variety of LMS platforms in existence, choosing one school using a specific LMS was a limitation. Another middle school using an implementation of blended learning could have a very different result using a different LMS. However, focusing on one middle school allowed the researcher to gain an in-depth knowledge of blended learning in the Schoology LMS platform. An investigation of different middle schools using a variety of LMS platforms could have provided different data than what was discovered in this case study.

The third limitation of this case study was time constraints. The time period selected for this case study was nine weeks. Choosing nine weeks to collect data resulted in a large quantity of data collected. Deciding to limit the study to a shorter time period could have resulted in a succinct collection of data which could have improved the quality of the study. The researcher believed that a shorter time period could have yielded similar data results without the obstacle of such a huge data collection to code.

The fourth limitation in this case study was focusing on the perspective of one teacher participant. Using one teacher participant is limiting the sample size of the study. However, even

though the sample size was limited, one teacher participant provided a depth of information. The volume of information that was gathered allowed the researcher to holistically understand the situation and perceptions of the art teacher participant. Although, it is understood that using a larger pool of participants could have provided different findings in the case study.

Implications of the Results for Practice, Policy, and Theory

Research on blended learning has shown blended learning was important in educational theory. Implementation of blended learning skills into a middle school art classroom through the Schoology LMS platform focused on the 21st century skills of critical thinking and problem solving, creativity and innovation, and communication and collaboration. The 21st century skills focused on were discussed by The Partnership for 21st Century Learning (2015) as benefitting students through inductive and deductive learning. The art teacher in this case study was changing the way she teaches in her classroom. The teacher chose to transform the information delivery method from a traditional teaching method to a blended learning method.

Change is often challenging in an education institution. Mezirow (1991) discussed how change requires autonomous thinking for it to be a meaningful change. For changes to be successful in classroom content delivery, educators need to have knowledge of what is working in other institutions where a similar change has taken place (Fullan, 2011). The art teacher in the study mentioned researching other methods of blending the learning in her classroom through different learning management system (LMS) options such as Google Classroom or Moodle. The Schoology LMS was chosen because it was available in the school and the teacher was provided with training on the Schoology LMS for six years. Based on this case study research, policy for art teachers regarding using LMS in classroom instruction could include guidelines for teacher's required use of LMS to meet the needs of students with various learning requirements. The

researcher agreed that other formats for utilizing blended learning could have implications for future practice in art education.

Theory was used in this case study to examine connections between the actions of the art teacher in the blended learning classroom and the non-blended classroom. The art teacher was guided by the need to transform the educational practice to meet the needs of an evolving technology-based education. As mentioned in Chapter 2, Mezirow (1990) explained that transformative learning involved making meaning of experiences. The art teacher in this case study used transformative learning to personalize and make meaning of the lessons for individual students. Students had many options in the blended learning class to choose formative assignments based on the student's interests. The students also were able to access multiple resources linked to the Schoology LMS to supplement the information related to the unit they were studying. Students had multiple choices and options available in the blended learning method to personalize and facilitate their own learning. Students facilitating their own learning historically in education was supported by Rogers (1961) in the theory of human learning. Rogers (1961) stated that outcomes are deeper when the learning was facilitated and responsibility was left on the student in the learning process. Theory on how transformative learning was utilized in this case study can be an implication for future teachers use transformative theory to guide change in education practices in teaching art.

The purpose of this study was to explore whether classroom norms, routines, and expectations support implementation of blended learning methods and have an increase on perceived student engagement. The purpose focused on the practice of implementing blended learning. It was the researcher's goal to gain a holistic understanding of the process used by the art teacher to implement blended learning in a middle school art class. The art teacher in the case

study was provided with the Schoology LMS as a tool to use with her middle school art class. The art teacher was allowed the freedom to use the Schoology LMS to support her teaching. The art teacher was trained to use the Schoology LMS prior to being part of the case study. The art teacher was then able to implement the blended learning methods into her classes as she determined appropriate. This practice of implementing new learning methods into the classroom placing the teacher at the forefront of the process was common, according to the art teacher. Based on the findings in this qualitative case study, implications for future practice could include increased funding for implementation of blended learning in art classes. Funding for teacher professional development and technology costs would benefit art teachers considering implementing blended learning into their classes.

In an interview session, the art teacher revealed that trying the blended method in one of the middle school art classes was the best way to gauge whether the blended learning method was a successful option for all the classes. The art teacher wanted student engagement to be a predictor of whether the implementation was perceived successful. Often in the research interview sessions, the teacher would compare the engagement of the class using blended learning to a class using the same curriculum, but not utilizing a blended learning approach. The researcher believed that using best practices and knowledge on the Schoology LMS was beneficial. Knowledge on LMS availability and ease of use could benefit other art teachers. The art teacher asserted that with the student's engagement and best interest at the forefront, learning occurred for all involved.

In this case study, the researcher examined the experiences of a middle school art teacher using a transformative process to implement blended learning into a middle school art class. Margolis and Nagel (2006) examined the necessity of teachers believing in transforming schools

finding it essential to have teacher buy in. The art teacher mentioned that the option to use the Schoology LMS in classes was adapted by approximately fifty percent of the teachers in the middle school. The art teacher felt challenged to transform the learning experience for her students relying more on technology; inspired by the goal of increasing the student's engagement. The researcher believed it was important to note that as an implication for future practice challenges exist in implementing blended learning.

Many unknown factors exist as teacher's transform the learning process in their classrooms using school provided technology. For some teachers, implementing a blended learning environment into their classes could be frustrating; although, the participant in this case study found it to be an inspiring way to engage students by using the technology that the students crave. It is inherent in most teachers to want to achieve the best learning environment possible for their students. The capability to personalize the learning for the students was mentioned by the art teacher as a benefit to implementing blended learning. The art teacher believed more resources and choices could be given to the students using the blended learning methods in the art class. With access to an LMS such as Schoology, art teachers could experiment with finding a blended method that works to meet their student's needs.

Recommendations for Further Research

This case study provides a starting point for further investigations to transform classrooms through a blended learning approach. There are many future opportunities for research on this and related topics. This researcher developed questions for future research on blended learning and middle school art classes:

- What are the experiences of art teachers implementing blended learning in art class at different grade levels?

- What are the experiences of groups of art teachers implementing blended learning into their art classes?
- What level of student engagement is necessary for implementation of blended learning to be considered successful?
- What are the experiences of a new art teacher compared to an art teacher with over ten years of experience teaching a blended learning class?
- What are the experiences of an art teacher with a strong background in technology compared to an art teacher with limited technology experience implementing a blended learning art class?
- What are the experiences of art teachers implementing blended learning into middle school art classes in an urban setting?
- What would a blended learning art class look like with a different learning management system (LMS)?

These recommendations are elaborated on further in the following paragraphs.

Grade level. This case study focused on one specific grade level, eighth grade. It would be interesting to examine how teachers of other grades such as elementary or high school would implement a blended learning approach into art classes. Research could also be completed comparing perceptions of student engagement from art teachers in different schools. Examining different grade levels of students to see if there is engagement due to the increased use of technology in the blended learning approach could be an interesting approach for further research. Research on these topics and questions could help the art teacher community as they consider transitioning to using an LMS such as Schoology in their own classrooms.

Groups of teachers. This case study focused on exploring one art teacher's experiences using blended learning in one eighth grade art class. Though a large volume of data was collected from this research, it would be interesting to see what data could be gathered from expanding the research to more than one art teacher. For example, studying how three or four teachers of middle school art would perceive the engagement of their students in a blended learning environment could provide useful information to other art teachers considering the blended learning approach. The teachers could be selected from the same school district or from multiple school districts to formulate a comparative study.

Level of student engagement. This case study relied on the art teacher to give an opinion of the observed class's student engagement with the blended learning methods. There are other methods available to gauge the level of engagement, including surveying students or using a ratings scale. Either of these options could have provided a more exact measurement of the student engagement with blended learning. Using surveys and a quantitative approach in conducting the research could yield findings that would be useful to the education community. The researcher also could have surveyed multiple classes in a different subject area to get a clear picture of the student's engagement level.

Teacher's experience. This case study included an art teacher participant with ten years of experience teaching middle school art. Another research study could include researching teachers that are new to teaching or that have minimal experience, such as one or two years. A comparative research study could be conducted to see how a new teacher would conduct a blended learning art class as compared to a teacher with over ten years of experience. The student's level of engagement based on the teacher's experience in teaching art could provide findings that are helpful to the art teacher community.

Technology experience. This case study focused on a teacher with over ten years of teaching experience. The teacher reported having training in blended learning for six years. The teacher also reported having taken twelve courses in technology for professional development during the teacher's entire teaching career spanning over 15 years. A comparison between an art teacher with very minimal technology experience or training and an art teacher with more extensive experience or training in technology could be researched to explore what differences would be seen in the student's engagement in the blended learning environment.

Urban setting. This case study focused a rural setting. It would be interesting to see what blended learning in an urban middle school art class would look like. Another possible study could examine the blended learning method in another subject area in an urban school district. Other areas of research could be focused on topics such as students in an urban school district and whether they can take home a Chromebook, laptop, or iPad for school work. Exploring whether it makes a difference on the blended learning method if students were not allowed to take a device home could be informative as well. Students may or may not have the same opportunity to access the LMS outside of school in an urban school district setting.

Learning management system (LMS). This case study focused on the Schoology LMS. Another possible research study could research a blended learning class using a different LMS. There are currently many options available for schools to choose. Some examples currently available to schools are Moodle, Google Classroom, Canvas, Blackboard, and Desire2Learn. A case study exploring two or more different learning management systems and the different options available for an art blended learning class could have valuable findings for the education community.

The recommendations for future research all could have an impact on multiple art teacher's implementation of blended learning in art class. This study expanded the investigation into art classes where the teacher was focused on implementing the blended learning approach. Further research is necessary to understand the positive and negative side of this strategy for learning. Dewey (1944) discussed change being a necessary component in teaching children in the future. Teachers in every grade level and in every subject area often consider the future when planning what to teach students. Change was an important aspect of the participating art teacher's plan to implement blended learning methods into the middle school art class. Changing the structure of the art class to utilize technology and deliver curriculum to students in a way that met the NCAS (2016) and increased the student's engagement was a primary goal of the participating art teacher. The qualitative case study research led to many options for further research on blended learning, student engagement, and other topics closely related to blended learning in the art classroom. Louwrens and Hartnett (2015) discussed the importance of utilizing the available technology and increasing the engagement of students in the 21st century. Utilizing the technology tools existing in the school to make an engaging environment for students was a sentiment expressed multiple times by the art teacher participating in this research study.

Conclusion

Many schools are including technology such as an LMS into the daily classroom routine. Students are connected to devices at home and at school. Teachers are learning how to harness this connection and engage students through the mode of learning that meets the student's needs best. Using blended learning allows for more built-in differentiation to meet the needs of all students in the class. Blended learning supports the NCAS (2016) by offering teachers numerous opportunities to meet the standards in any given lesson. The researcher observed students

generating and conceptualizing artistic ideas, organizing their ideas, and completing a work of art. A variety of resources were also provided to students in the Schoology LMS.

The purpose of this qualitative case study was to explore one art teacher's experiences using blended learning methods in an eighth grade art class. The art teacher's perceived opinion of student engagement in a blended and non-blended art class were examined. It was concluded by the researcher through a collection of data from observations, interviews, and document analysis that the blended art class students were highly engaged in the blended learning methods employed by the art teacher. The art teacher in this case study validated this was her perception of the blended class in every interview session. This study filled a gap that was noted by the researcher in a review of the literature on the topics of art education, specifically including blended learning and student engagement (Patten & Newhart, 2018).

The transformation from a traditional way of teaching art to using a blended learning approach was described by the participating art teacher as "challenging and exciting." The art teacher in the study claimed she was "empowered by the experience." As the more members of the art teacher community consider adapting a blended learning approach, it is hopeful that this research will provide useful information about the implementation of blended learning methods into any grade level.

References

- Adler, M. J., & Gorman, W. (1952). The great ideas: A syntopicon of great books of the western world (Vol. I & II). Chicago, IL: Encyclopedia Britannica. Retrieved from <http://www.thegreatideas.org/index.html>
- Albhnsawy, A. A., & Aliweh, A. M. (2016). Enhancing student teachers' teaching skills through a blended learning approach. *International Journal of Higher Education*, 5(3), 131–136. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1871579927?accountid=10248>
- Barbour, M. K., Clark, T., DeBruler, K., & Bruno, J. (2016). Evaluation and approval constructs For K-12 online and blended courses and providers. *JAEPR, Journal of Applied Educational Policy Research*, 2(1), 32–45.
- Betts, J. E., Appleton, J. J., Reschly, A. L., Christenson, S. L., & Huebner, E. S. (2010). A study of the factorial invariance of the student engagement instrument (SEI): Results from middle and high school students. *School Psychology Quarterly*, 25(2), 84–93.
- Brandt, R. (1987). On discipline-based art education: A conversation with elliot eisner. *Educational Leadership*. Retrieved from http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_198712_brandt2.pdf
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research Psychology*, 3:2, 77–101. Retrieved from <https://www.tandfonline.com/doi/abs/10.1191/1478088706qp063oa>
- Christensen, C., & Horn, M. (2008). How do we transform our schools? *Education Next*, 8 (3), 13–19.

- Creswell, J. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications, Inc.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 1–130.
- Deloitte. (2018). Digital education survey: Explore emerging trends in digital education technology. Retrieved from <https://www2.deloitte.com/us/en/pages/technology-media-and-telecommunications/articles/digital-education-survey.html>
- Dembo, M., & Eaton, M. (2000). Self-regulation of academic learning in middle-level schools. *The Elementary School Journal*, 100(5), 473–490. Retrieved from <http://www.jstor.org/stable/1002280>
- Dewey, J. (1944). *Democracy and Education*. New York, NY: The Free Press.
- Dirkx, J. (2000). *Transformative learning and the journey of individuation*. Retrieved from <http://files.eric.ed.gov/fulltext/ED448305.pdf>
- Dixson, M. D. (2015). Measuring student engagement in the online course: The online student engagement scale (OSE). *Online Learning*, 19(4), 14–15. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1773229791?accountid=10248>
- Dolezal, S. E., Welsh, L. M., Pressley, M., & Vincent, M. M. (2003). How nine third-grade teachers motivate student academic engagement. *Elementary School Journal*, 103(3), 239–267.

- Downes, J. M., & Bishop, P. (2012). Educators engage digital natives and learn from their experiences with technology. *Middle School Journal*, 43(5), 6–15. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1282258744?accountid=10248>
- Eryilmaz, M. (2015). The effectiveness of blended learning environments. *Contemporary Issues in Education Research (Online)*, 8(4), 251–252. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1722651929?accountid=10248>
- Flanagan, M. (2016). The effects of a one-to-one iPad initiative: A case study (Order No. 10193839). Available from ProQuest Dissertations & Theses Global. (1853422283). Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1853422283?accountid=10248>
- Fullan, M. (2011). *Change leader*. Hoboken, NJ: Jossey-Bass.
- Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. San Francisco, CA: Jossey-Bass.
- Global State of Digital Learning in K-12 Education. (2017). Retrieved from <https://info.schoology.com/rs/601-CPX-764/images/2017-Global-State-of-Digital-Learning-in-K-12%20Education.pdf>
- Graham, C., & Dziuban, C. (2003). Blended learning environments. *Semantics Scholar*, 269–274. Retrieved from <https://pdfs.semanticscholar.org/3115/9c8043330064c735bbd9776dff822a3c8782.pdf>

- Graham, C. (2005). The handbook of blended learning. Retrieved from <http://www.publicationshare.com/c1-Charles-Graham-BYU--Definitions-of-Blended.pdf>
- Hancock, D. R., & Algozzine, R. (2016). *Doing case study research: A practical guide for beginning researchers*. New York, NY: Teachers College Press.
- Harlacher, J. E. (2015). *Designing Effective Classroom Management*. Bloomington, IN: Marzano Research.
- Hassana, R., & Woodcock, A. (2014). Blended learning: Issues and concerns. Retrieved from https://www.researchgate.net/publication/228944257_Blended_learning_Issues_and_Concerns
- Hattie, J. (2011). *Visible learning for teachers: Maximizing impact on learning*. London, UK: Routledge.
- Horn, M. B., & Staker, H. (2011). The rise of K-12 blended learning. Innosight Institute. Retrieved from <http://www.innosightinstitute.org/innosight/wp-content/uploads/2011/01/The-Rise-of-K-12-Blended-Learning.pdf>
- Hutchison, A. C., & Colwell, J. (2014). The Potential of Digital Technologies to Support Literacy Instruction Relevant to the Common Core State Standards. *Journal of Adolescent & Adult Literacy*, 58(2), 147–156.
- International Society for Technology in Education (2018). ISTE: Definition of student-centered learning. Retrieved from <https://www.iste.org/standards/essential-conditions/student-centered-learning>
- Kee, C., & Samsudin, Z. (2014). Mobile devices: Toys or learning tools for the 21st century teenagers? *TOJET: The Turkish Online Journal of Educational Technology*, 13(3), 8–10. Retrieved from

<http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1618110581?accountid=10248>

Kim, H. J., Park, J. H., Yoo, S., & Kim, H. (2016). Fostering creativity in tablet-based interactive classrooms. *Journal of Educational Technology & Society*, 19(3), 207–220. Retrieved from

<http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1814440971?accountid=1024838>

Kintu, M. J., Zhu, C., & Kagambe, E. (2017). Blended learning effectiveness: the relationship between student characteristics, design features and outcomes. *International Journal of Educational Technology in Higher Education*, 14(7) 4–6. Retrieved from <https://doi.org/10.1186/s41239-017-0043-4>

Kliger, D., & Pfeiffer, E. (2011). Engaging students in blended courses through increased technology. *Journal of Physical Therapy Education*, 25(1), 11–14. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/880289074?accountid=10248>

Kohlbacher, F. (2006). The use of qualitative content analysis in case study research. *Forum: Qualitative Social Research*, 7(1), 3–6. Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/75/153>

Kong, S., Chan, T., Griffin, P., Hoppe, U., Huang, R., Kinshuk, ... Yu, S. (2014). E-learning in school education in the coming 10 years for developing 21st century skills: Critical research issues and policy implications. *Journal of Educational Technology & Society*, 17(1), 70–78. Retrieved from <http://www.jstor.org/stable/jeductechsoci.17.1.70>

- Lapp, D., Fisher, D., & Frey, N. (2014). Blended learning as a third space. *Voices from the Middle*, 22(2), 7–9. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1635286345?accountid=10248>
- Le Ha, P. (2014). The politics of naming: Critiquing “learner-centered” and “teacher as a facilitator” in English language and humanities classrooms. *Asia-Pacific Journal of Teacher Education*, 42(1), 392–405.
- Lemley, J. B., Schumacher, G., & Vesey, W. (2014). What learning environments best address 21st-century students' perceived needs at the secondary level of instruction? *National Association of Secondary School Principals. NASSP Bulletin*, 98(2), 101–125. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1532145811?accountid=10248>
- Longo, C. M. (2016). Changing the instructional model: Utilizing blended learning as a tool of inquiry instruction in middle school science. *Middle School Journal*, 47(3), 33–40. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1785518135?accountid=10248>
- Louwrens, N., & Hartnett, M. (2015). Student and teacher perceptions of online student engagement in an online middle school. *Journal of Open, Flexible and Distance Learning*, 19(1), 27–44. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1720057607?accountid=10248>

- Lu, J., Bridges, S. M., & Hmelo-Silver, C. (2014). Problem-based learning. In R. Keith Sawyer (Ed.). *The Cambridge handbook of the learning sciences* (2nd ed., pp. 298–318). Cambridge, UK: Cambridge University Press.
- Margolis, J., & Nagel, L. (2006). Education reform and the role of administrators in mediating teacher stress. *Teacher Education Quarterly*, 33(1), 143–159.
- Marshall, C., & Rossman, G. B. (2011). *Designing qualitative research* (5th ed.). Los Angeles, CA: Sage.
- Martin, C., Nacu, D., & Pinkard, N. (2016). Revealing opportunities for 21st century learning: An approach to interpreting user trace log data. *Journal of Learning Analytics*, 3(2), 37–87. [http:// dx.doi.org/10.18608/jla.2016.32.4](http://dx.doi.org/10.18608/jla.2016.32.4)
- Marzano, R., & Pickering, D. (2011). *The highly engaged classroom*. Bloomington, IN: Marzano Research Laboratory.
- Mazur, A. D., Brown, B., & Jacobsen, M. (2015). Learning designs using flipped classroom instruction. *Canadian Journal of Learning and Technology*, 41(2), 1–26. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1720057846?accountid=10248>
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- Mezirow, J. (1990). How critical reflection triggers transformative learning. In J. M. & Associates (ed.), *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory learning*. San Francisco, CA: Jossey-Bass.

- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, 74, 5–12.
- Mezirow, J. (2000). Learning to think like an adult: Core concepts of transformation theory. In J. Mezirow and Associates, *Learning as transformation: Critical perspectives on a theory in progress* (pp. 3–33). San Francisco, CA: Jossey-Bass.
- Mezirow, J. (2003). Transformative learning as discourse. *Journal of Transformative Education*, 1(1), 58–63.
- Moss, B., & Fink, L. (2014). Blended learning resources for middle grade teachers. *Voices from the Middle*, 22(2), 10–12. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1635286793?accountid=10248>
- Mtebe, J. (2015). Learning management system success: Increasing learning management system usage in higher education in sub-Saharan Africa. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 11(2), 51–64. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1074158.pdf>
- Narciss, S. (2008). Feedback strategies for interactive learning tasks. In J.M. Spector, M.D. Merrill, J.J.G. van Merriënboer, & M.P. Driscoll (Eds.), *Handbook of research on educational communications and technology* (3rd ed., pp. 125–144) Mahwah, NJ: Lawrence Erlbaum Associates.
- National Core Arts Standards (NCAS). (2016). Conceptual framework. Retrieved from

- http://www.nationalartsstandards.org/sites/default/files/NCCAS%20%20Conceptual%20Framework_4.pdf
- Onguko, B., Jepchumba, L., & Gaceri, P. (2013). For us it was a learning experience. *European Journal of Training and Development*, 37(7), 615–634.
doi:<http://dx.doi.org.cupdx.idm.oclc.org/10.1108/EJTD-10-2012-0052>
- Osguthorpe, R. T., & Graham, C. R. (2003). Blended learning systems: Definitions and directions. *Quarterly Review of Distance Education*, 16(2), 227–234.
- Osterlie, O. (2018). Can flipped learning enhance adolescents’ motivation in physical education? An intervention study. *Journal for Research in Arts and Sports Education*, 2(1), 1–15.
doi:<https://doi.org/10.23865/jased.v2.916>
- Patten, M. L., & Newhart, M. (2018). *Understanding research methods: An overview of the essentials*. New York, NY: Routledge.
- Patton, R., & Buffington, M. (2016). Keeping up with our students: The evolution of technology and standards in art education. *Arts Education Policy Review*, 117(3), 1–9.
- Partnership for 21st Century Learning. (2015). *P21 framework definitions*. Retrieved from http://www.p21.org/storage/documents/docs/P21_Framework_Definitions_New_Logo_2015.pdf
- Pazzaglia, A. M., Clements, M., Lavigne, H. J., & Stafford, E. T. (2016). An analysis of student engagement patterns and online course outcomes in wisconsin. *Regional Educational Laboratory Midwest*. Washington, DC. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1826527576?accountid=10248>
- Personalized learning. (n.d.). In *the glossary of education reform*. Retrieved from

- <https://www.edglossary.org/personalized-learning/>
- Picciano, A. (2014). Big data and learning analytics in blended learning environments: benefits and concerns. *International Journal of Artificial Intelligence and Interactive Multimedia*, 2(7), 35–43. Retrieved from <https://pdfs.semanticscholar.org/814e/e53f2397879f86716bfe3566afe256e3e939.pdf>
- Price, J. H., & Murnan, J. (2004). Research limitations and the necessity of reporting them. *American Journal of Health Education*, 35(1), 66–67. Retrieved from <http://libguides.usc.edu/writingguide/limitations>
- Rahmawati, Y. (2008). The role of learning environments research on improving learning process in the chemistry laboratory. Retrieved from <https://yulirahmawatiunj.com/2008/04/12/the-nature-and-characteristics-of-educational-research/>
- Ramos, M. C. (1989). Some ethical implications of qualitative research. *Research in Nursing & Health*, 12(1) 57–63.
- Raphael, L., Pressley, M., & Mohan, L. (2008). Engaging Instruction in Middle School Classrooms: An Observational Study of Nine Teachers. *The Elementary School Journal*, 109(1), 61–81.
- Ravitch, S. M., & Riggan, M. (2012). *Reason & rigor: How conceptual frameworks guide research*. Thousand Oaks, CA.: Sage Publications.
- Reynolds, R., & Caperton, I. H. (2011). Contrasts in student engagement, meaning-making, dislikes, and challenges in a discovery-based program of game design learning. *Educational Technology Research and Development*, 59(2), 267–289.
- Rich, E. (2010). How do you define 21st-century learning? *Education Week*, 48(7), 15–18.

Retrieved from

<https://www.edweek.org/tsb/articles/2010/10/12/01panel.h04.html>

Rogers, C. (1961). *On becoming a person*. Boston, MA: Houghton- Mifflin.

Saldaña, J. (2013). *The coding manual for qualitative researchers*. Thousand Oaks, CA; Sage Publications Ltd.

Sanjari, M., Bahramnezhad, F., Fomani, F. K., Shoghi, M., & Cheraghi, M. A. (2014). Ethical challenges of researchers in qualitative studies: the necessity to develop a specific guideline. *Journal of Medical Ethics and History of Medicine*, 7(14), 3–16.

Saritepeci, M., & Çakir, H. (2015). The effect of blended learning environments on student motivation and student engagement: A study on social studies course. *Egitim Ve Bilim*, 40(177), 203–216. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1656565570?accountid=10248>

Seattle Public Schools. (2018). Schoology introduction. Retrieved from <http://www.seattleschools.org/cms/One.aspx?portalId=627&pageId=6631117>

Sorokin, P. (1992). *The crisis of our age*. Chatham, NY: One World.

Spector, J. M., Ifenthaler, D., Sampson, D., Yang, L., Mukama, E., Warusavitarana, A., ...

Gibson, D. C. (2016). Technology enhanced formative assessment for 21st century learning. *Journal of Educational Technology & Society*, 19(3), 58–71. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1814441106?accountid=10248>

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage Publications.

Stake, R. E. (2005). Qualitative Case Studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The sage*

- handbook of qualitative research* (pp. 443–466). Thousand Oaks, CA: Sage Publications.
- Staker, H., & Horn, M. B. (2012). *Classifying K-12 Blended Learning*. Mountain View, CA: Innosight Institute. <http://www.christenseninstitute.org/wp-content/uploads/2013/04/Classifying-K-12-blended-learning.pdf>
- Stone, A. (2008). The holistic model for blended learning: A new model for K-12 district-level cyber schools. *International Journal of Information and Communication Technology Education*, 4(1), 56–57, 60–71. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/222732883?accountid=10248>
- Strayer, J. F. (2012). How learning in an inverted classroom influences cooperation, innovation and task orientation. *Learning Environments Research*, 15(2), 171–193.
- Student engagement. (n.d.). In *the glossary of education reform*. Retrieved from <https://www.edglossary.org/student-engagement/>
- Styslinger, M. E., Walker, N. L., Lenker, T. K., & Fink, L. (2014). Beyond the sticky note and venn diagram: Comprehension strategies for 21st-century schools. *Voices from the Middle*, 22(2), 13–20. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1635286410?accountid=10248>
- Swan, B., Coulombe-Quach, X., Huang, A., Godek, J., Becker, D., & Zhou, Y. (2015). Meeting the needs of gifted and talented students: Case study of a virtual learning lab in a rural middle school. *Journal of Advanced Academics*, 26(4), 294–319. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1732326716?accountid=10248>

- Townes, T. C. (2016). The consequences of creativity in the classroom: The impact of arts integration on student learning (Order No. 10296885). Available from ProQuest Dissertations & Theses Global. (1846112419). Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1846112419?accountid=10248>
- Vaughan, N. (2014). Student engagement and blended learning: Making the assessment connection. *Education Sciences*, 4(4), 247–264.
doi:<http://dx.doi.org.cupdx.idm.oclc.org/10.3390/educsci4040247>
- Veres, J. W. (2013). Blended learning: A case study on teacher effectiveness (Order No. 3598983). Available from ProQuest Dissertations & Theses Global. (1461742781). Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1461742781?accountid=10248>
- Watson, W., & Watson, S. (2006). An argument for clarity: what are learning management systems, what are they not, and what should they become. *TechTrends*, 51(2), 28–34.
- Wilhelm, J. D. (2014). Teacher as trickster: Navigating boundaries into blended transformational spaces. *Voices from the Middle*, 22(2), 42-44. Retrieved from <http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1635286538?accountid=10248>
- Willerson, A. (2018). Bridging the gap: How the National Core Arts Standards forge the divide between the arts and assessment-based learning. *Arts Education Policy Review*, 123(4), 1–7.
- Yin, R. K. (2003). *Case study research: Design and methods*. Thousand Oaks, CA: Sage

Publications.

Yin, R. K. (2009). *Case study research: Design and methods (4th Ed.)*. Thousand Oaks, CA:

Sage.

Yin, R. K. (2014). *Case study research: Designs and methods (5th Ed.)*. Thousand Oaks, CA:

Sage.

Zainuddin, Z., & Halili, S. H. (2016). Flipped classroom research and trends from different fields of study. *International Review of Research in Open and Distance Learning*, 17(3), 313–

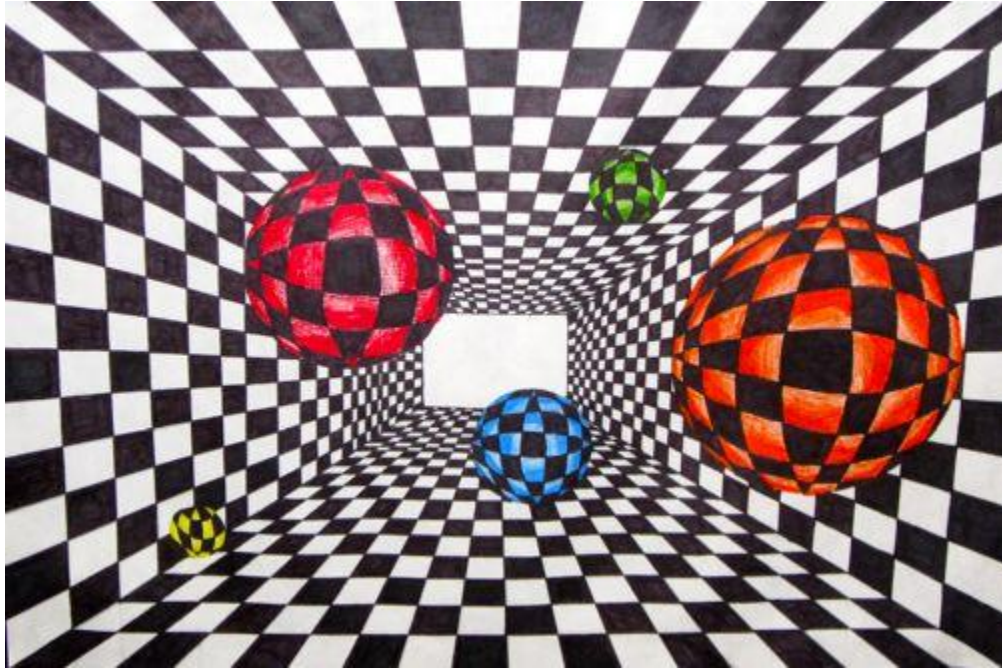
340. Retrieved from

<http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1792745889?accountid=10248>

Appendix A: Artifact

Example of Lesson Transcript Information Included in Schoology LMS

Optical Illusion-Floating Shapes in a Room Project



Scenario:

The local clinic and hospital are looking for 2-3 images of Op Art for their spring art show representing work from students in this school district. Your job is to create an image of a room in perspective with the illusion floating shapes in a 3-dimensional manner.

Lesson duration: 10 classes

Objectives:

Students will...

1. Define and learn about the elements of art.
2. Gain an appreciation and understanding of the history of the Op Art period while learning about the art and contributions of Bridget Riley.

3. Discover how the elements of art (specifically line, shape, space and color) can be purposefully utilized to create optical illusion art.
4. Gain an understanding and appreciation for the principles of art and their use in the creation of artwork.
5. Learn about complementary colors, as well as, how to categorize colors in the color families of warm and cool; they will use this knowledge to create a high contrast-alternating pattern.
6. Reflect on what they have learned as far as vocabulary and technique, by creating an original piece of Op art.

Vocabulary:

Line- the most basic element of art can vary is thickness. They can be sharp, soft, curvy, wavy, parallel, vertical, etc.

Shape- is an area defined by value, color or line. Shapes can be outlined or solid.

Space- refers to distances or areas around, between or within components of a piece. Space can be positive or negative.

Color- Color is the element of art that is produced when light, striking an object, is reflected to the eye.

Warm Colors- colors associated with heat, described as colors of the sun such as yellow, red, orange etc.

Cool Colors- described as colors of the sea. Such as green, blue-green, blue, blue-violet, etc.

Complementary Colors- two colors directly opposite each other on the color wheel.

Value- relative lightness or darkness of an art material, i.e. a pencil; value also relates to how the parts of a picture relate to one another with respect to lightness and darkness.

Contrast- is a principle of design that refers to the arrangement of opposites i.e. smooth/textured light/dark

Pattern- is a principle of art. Refers to the repetition of an element(s) in a work of art.

Movement- can be still or dynamic. It is a principle of art often used to create the look and feeling of action. Movement also refers to how the viewer's eye is guided throughout the composition.

National Core Art Standards: Creating, Performing and Participating in the Arts

Students will participate in their learning by completing an activity packet regarding the elements of art. Students will discover how the alternating checkerboard pattern contributes to the optical illusion by completing a handout exercise. They will apply what they learn about the elements of art and the work of Bridget Riley to create their own optical illusion.

VA: Cr1.1.8a: Document early stages of the creative process visually and/or verbally in traditional or new media. Students will create a planning sketch in their sketchbook and discuss their ideas with their peers and teacher in a Schoology discussion.

Standard 2: Knowing and Using Art Materials and Resources

Students will learn how to color with markers in a way that is neat and adds to the craftsmanship of the work.

Standard 3: Responding to and Analyzing Works of Art

Students will be exposed to Optical Illusion Art by watching a brief video clip of the 1965 exhibition, The Responsive Eye, at the Museum of Modern Art; they will see the reactions of people from the 60's and will share their own reactions to the work, through class discussion.

They will analyze and discuss the work of Bridget Riley discovering how she used the elements of art to create illusion.

Standard 4: Understanding the Cultural Dimensions and Contributions of The Art

Students will understand the contribution of Op art to the art world; how it introduced modern art to society making the viewer an “active” viewer of the artwork.

Appendix B: Site Authorization

SCHOOL PERMISSION TO CONDUCT RESEARCH

February 12, 2018

Dear Institutional Review Board:

The purpose of this letter is to inform you that I give Michele Mars permission to conduct the research title Blended Learning in Middle School Art in this school district. This also serves as assurance that this school complies with requirements of the Family Educational Rights and Privacy Act (FERPA) and the Protection of Pupil Rights Amendment (PPRA) and will ensure that these requirements are followed in the conduct of this research.

Sincerely,

The Study Site District Administrator

Appendix C: Interview Questions

1. What do you do differently in your blended learning classes as opposed to traditional classes?
2. What kinds of strategies do you use in blended classes to assure student understanding?
3. Could you give me an example of a how you do this in a lesson?
4. Explain to me your expectations and routines in a blended art class.
5. How long is the learning curve for a student who has never had a blended class?
6. How engaged are your blended learning students?
7. If you feel they are not as engaged as you would like, what do you do?
8. What is the most frustrating aspect of a blended learning art class?
9. What are the positives for both teacher and student in a blended art class?
10. Do you feel you have had enough support for teaching a blended class? If so or not so, why?
11. In your current class, what changes would you like to make?
12. How are National Core Arts Standards (NCAS, 2016) met in the blended learning class?

Appendix D: Informed Consent Form

CONSENT FORM

Research Study Title: Blended Learning in Middle School Art

Principal Investigator: Michele Mars

Research Institution: Concordia University

Faculty Advisor: Audrey Rabas

Purpose and what you will be doing:

The purpose of this study is to explore blended learning in middle school art. No one will be paid to be in the study. The study will begin on April 3rd, 2018 and end on September 14th, 2018. To be in the study, you will be observed, interviewed, and asked to share documents used in an eighth grade art class that is implementing blended learning strategies. Participation will require two classes being observed each week (40 minutes each) and one interview session (30 minutes) during prep time each week.

Risks:

There are no risks to participating in this study other than providing your information. Your information will be protected. Any personal information you provide will be coded so it cannot be linked to you. Any name or identifying information you give will be kept securely via electronic encryption. When the collected data/documents are looked at, none of the data/documents will have your name or identifying information. You will not be identified in any publication or report. Your information will always be kept private and then all study documents will be destroyed 3 years after the study is concluded.

Benefits:

Information you provide will help to further research in the area of blended learning in art education.

Confidentiality:

This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is if you tell the researcher about abuse or neglect that makes the researcher seriously concerned for your immediate health and safety.

Right to Withdraw:

Your participation is greatly appreciated, but I acknowledge that the questions I am asking are personal in nature. You are free at any point to choose not to engage with or stop the study. You may skip any questions you do not wish to answer. This study is not required and there is no penalty for not participating. If at any time you experience a negative emotion from answering the questions, I will stop asking you questions.

Contact Information:

You will receive a copy of this consent form. If you have questions you can talk to or write the principal investigator, Michele Mars. If you want to talk with a participant advocate other than the investigator, you can write or call the director of our institutional review board, Dr. OraLee Branch.

Your Statement of Consent:

I have read the above information. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study.

Participant Name

Date

Participant Signature

Date

Investigator Name

Date

Investigator Signature

Date

Investigator: Michele Mars
c/o: Professor Dr. Audrey Rabas
Concordia University–Portland
2811 NE Holman Street
Portland, Oregon 97221



Appendix E: Interview Protocol

The interviews with the art teacher were conducted once every two weeks. The interviews lasted approximately 45 minutes and were recorded with an iPad. Selected questions were chosen from the interview questions list to go over during each interview. Notes were also taken by the researcher using the following example format.

Date: Time: Location: Art teacher's office in the school

Questions:

This week's observed lesson was on _____.

Can you explain the objectives of the lesson and show the resources that are included in the Schoology (LMS)?

Can you explain the differences between the way the lesson was conducted with the blended class as opposed to a traditional class?

What blended strategies were used to assure students were understanding?

How were the students engaged in the lesson?

Did you experience any frustrations with the observed blended learning class?

Would you make any changes to this lesson to gain greater student understanding or perceived engagement of the students?

What NCAS (2016) were met in this lesson?

Thank you for making time to meet with me today. Can we go over the schedule and lesson topics for the next two weeks?

Schedule for the next two weeks of observations:

Observation lesson topics:

Appendix F: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

Statement of academic integrity.

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

Explanations:

What does “fraudulent” mean?

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

What is “unauthorized” assistance?

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another’s work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

Statement of Original Work (continued)

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University Portland Academic Integrity Policy during the development and writing of this dissertation.
2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*

A handwritten signature in black ink, appearing to read "Michele Mars", written over a horizontal line.

Digital Signature

Michele Mars

Name (Typed)

11/23/2018

Date