

EFFECTS OF SYNCHRONOUS LESSONS ON STUDENTS IN AN ASYNCHRONOUS
ONLINE ART COURSE

By

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To Ted William Werner

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LIST OF TERMS

Action research	The process of improving practice by taking action to solve a problem through reflective thinking, thoughtful analysis, and theorizing causes and solutions
Asynchronous learning	Teaching and learning that occur outside the constraints of time and place
Blackboard Collaborate	Web conferencing tool that allows for online synchronous instruction
Blended learning	Combining elements of synchronous and asynchronous instruction to facilitate thoughtful reflection and differentiate instruction for students in online courses
Field notes	Observational notes recorded from studied phenomenon
Inquiry	The process of answering a question related to professional practice
Perspective	A technique used to represent three-dimensional images on a two-dimensional plane
Reflective journal	Notes that capture the researcher's thoughts throughout the research study
Rubric	An assessment tool, which details quality expectations
Session	The entire live lesson including pre and post direct instruction
Synchronous learning	Teaching and learning that occur at the same time and place

Abstract of Dissertation Presented to the Graduate School
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**EFFECTS OF SYNCHRONOUS LESSONS ON STUDENTS IN AN ASYNCHRONOUS
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By

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Chair: Erik Black

Major: Curriculum and Instruction

The purpose of this study was to determine what effects synchronous instruction has on students in an asynchronous online art course. Action research was selected as the research method as it allows the researcher to study his or her own classroom in order to improve their own instruction. Data was collected for a period of one month from five synchronous sessions addressing the art topic of 'perspective.' Using a mixed-methods approach, data was collected and analyzed from the synchronous sessions, twelve students who chose to participate during the course of the study. Field notes, entries in a reflective journal, and student artifact rubric scores were analyzed to determine effects the synchronous sessions had on the students participating in an asynchronous online art course.

Implementing supplemental synchronous lessons into Florida Virtual School's M/J Orientation to Art 2D course and studying the effects they had on students lead to theorization that synchronous learning through live sessions provides an opportunity for increased student engagement. Student engagement promoted two outcomes; increased student performance shown by students who submitted or resubmitted the assignment after the synchronous session and opportunities for students to interact with

others. Recommendations and implications for including synchronous sessions in predominately asynchronous courses are discussed, including the need for additional research to determine effects on student achievement.

CHAPTER 1

INTRODUCTION

Context

Professional practitioner experiences contribute to quality in teaching, empowerment as leaders, and enable scholarly contributions to the field (Strategic Forum for Research in Education, 2009). Historically, teachers have been left out of conversations about educational reform. By exploring problems or dilemmas that they encounter during professional practice, teachers may inquire into subjects unknown to others, thus providing an opportunity to further the field (Schubert, 1984; Dana & Yendol-Silva, 2003). Through an inquiry based focus on blended learning experiences in K-12 online art education, I will provide evidence of expertise in Shulman's three domains of professional practice: scholarship, teaching, and leadership.

Background

K-12 Online Learning

Cavanaugh and Blomeyer (2007) define online learning as a type of distance education in which the teacher and learner are separated by time and physical space, with the purpose of expanding access and providing curricular opportunities. While the idea of learning at a distance may seem novel, the concept has existed for more than a century (Simonson, Smaldino, Albright, & Zvacek, 2003). Late 19th century higher educational institutions such as the Universities of Chicago and Wisconsin included correspondence courses within their programs (Simonson, et al., 2003). Advancements in electronic communications expanded distance educational opportunities for students by increasing the potential for interaction and collaboration (Simonson, & et al., 2003). Distance teaching universities in South Africa and the United Kingdom brought about a

change in practice in much of the world (Simonson, et al., 2003). One of the more recent trends in evolution of distance education is Internet-based instruction, online learning, for students in elementary through high schools.

There are currently over one million Kindergarten through 12th grade (K-12) students (about 2% of the United States (US) school-age population) taking online courses; this number represents over a 40% increase from the 2008-09 school year (Watson & Gemin, 2010). At the K-12 level, there are several types of online learning programs including, state-level virtual schools, online learning consortia, cyber charters, local school programs, and private providers who serve students around the country and operate in a variety of ways (Cavanaugh & Blomeyer, 2007). Given the relative youth of the field, the collective body of knowledge and research surrounding K-12 online learning is growing each year and research has shown that online students achieve at levels equal to those in traditional classrooms when given instruction of equal quality (Watson & Ryan, 2007; Kearsley, 2000; Cavanaugh, 2004). Picciano and Seaman (2009) report that school district administrators feel that the most salient affordance of online education is the opportunity to provide courses not otherwise available in their schools.

The online course modality does provide the opportunity for teacher to student interaction (Offir, 2007). Synchronous instruction occurs when students are online and able to communicate with the teacher at the same time. For example, students who attend live webinars each week for science instruction would be participating in synchronous learning experiences since they can communicate with the teacher during instruction. On the other hand, asynchronous instruction can occur regardless of whom

is online (Tallent-Runnels, 2006). Asynchronous courses are designed so that students can access content anytime, while the teacher may only provide feedback. The blended learning delivery approach falls somewhere in the middle as this method combines modes of Web-based technology to achieve an educational goal (Driscoll, 2002). Examples of different modes of blended approaches may include, live virtual classroom, self-paced instruction, collaborative learning, and more (Driscoll, 2002).

The U.S. Department of Education's recent review of online learning reveals that learning outcomes for students in purely online environments were statistically equivalent to those in completely face-to-face classrooms, but mixing the two methods by combining online and face-to-face elements had a larger advantage (Means, 2010). This project will address the need to understand the implications of blended instructional delivery methods for online art students.

K-12 Art Education

The National Art Education Association (NAEA, 1999) defines art education as, "criticism, evaluations, judgments, and statements about aesthetic properties, as well as objects and experiences with materials." From the late 19th century through current day, art education has maintained a place in schools. Beginning with Picture Study Movement (early aesthetics education), continuing with the Getty's discipline-based model (DBAE-experiences production, criticism, history, and aesthetics) up through the current interest in visual culture, art education has maintained a place in schools (Gregory, 1997). A study in 2000 by the U.S. Department of Education reports that 87% of public elementary schools and 93% of public high schools offer instruction in the visual arts. Even with its prominence, art education remains a contentious topic when budgets are limited or during curriculum reform (Tamer, 2010).

There are various schools of thought when it comes to the value of art education in schools. Some researchers argue that art improves performance in other subjects; others suggest that it may or may not, depending on how it is taught (Salmon & Perkins, 1989; Winner & Cooper, 2000). A 1999 study of human involvement in the arts and the resulting effect on their development found statistically significant evidence that students with art education backgrounds have higher achievement as well as better attitudes and behaviors than those with less arts involvement (Fiske, 1999). Burger and Winner (2000) found that when art instruction was not integrated with readers, the reading instruction had no effect on remedial readers. Furthermore, they determined that remedial readers become more motivated to read when reading instruction was integrated with art (Burger & Winner, 2000).

Other studies of art education have proved more plausible transfers from that education as Hetland, Winner, Veenema, and Sheridan (2003) state in their book, 'Eight Studio Habits of the Mind' may help in other subjects and in life. The habits included in Studio Thinking Framework include: develop craft, engage and persist, envision, express, observe, reflect, stretch and explore, and understand art world. These researchers found it dangerous to conclude that art instruction will increase student achievement for fear that if students don't achieve, art programs would be cut.

The U.S. Department of Education states that obtaining a meaningful arts education is part of getting the best education possible (Duncan, 2009). When making critical budget and program decisions, the National Education Secretary Duncan reminded public school officials that the arts are considered a core academic subject (Duncan, 2009). Given the hard choices and prioritization required by the continuing

fiscal climate in the United States, there remain considerable challenges to providing art education in many school districts.

Regardless of the proven benefits, art education has recently experienced decreased funding due to State and National policies that concentrate on core academic courses (Ashford, 2004; Congdon, 2009; Lafee, 2008). Schools have been particularly affected by No Child Left Behind (NCLB) since additional time spent reinforcing tested curricula has resulted in a 35% reduction in the amount of time spent on art and music (Chapman, 2004; McMurrer, 2008). As the nation undergoes record-breaking budget cuts, public school based art education has been severely affected (Lafee, 2008). In 2008, half of the elementary art programs in Alachua County, Florida were eliminated as part of the effort to ease a \$14 million budget shortfall (Roland, 2008). Despite public opposition, Toledo officials are moving forward with deep cuts, which jeopardize art positions in an effort to balance the budget (Kirkpatrick, 2010). Harvard's Graduate School of Education reports that the prospects for comprehensive K-12 art programs appear bleak in many schools around the nation (Tamer, 2010).

K-12 Online Art Education

One way to provide students access to resources and instructors not locally available is through online learning (Cavanaugh, 2004). Research says that distance learning is equally as effective as the traditional brick and mortar model (Kearsley, 2000; Cavanaugh, 2004). Through online learning, students receive another benefit as they access teachers living outside their community, allowing exposure to a broader perspective (Wise, 2010).

In the present climate of declining funds and cuts in perceived "non-essential" curriculum, students can maintain accessibility to art education using on-line learning

models (Gura, 2008). Today's 21st century students are already familiar with technology and the online format can provide increased access for more students at a time when traditional face-to-face art programs are being reduced or eliminated (Roland, 2010).

While traditional art programs may see a decline, Florida Virtual School (FLVS), K12 Inc, and Connections Academy, are a few of the K-12 online learning providers that offer art instruction. FLVS enrollment reports indicate that the number of students participating in Advanced Placement Art History and Middle School Orientation to Art 2D have seen dramatic increases since 2006 when reports were made available (Table 1-1).

Evolution of My Passion: Online Art Education

After earning a Bachelor of Arts in Art Education my first teaching experience was at a technology magnet school. Undergraduate courses that included technology applications in art such as, Computers in Art and Computers and Painting helped form a foundation for teaching elementary students innovative applications in art. Included in my curriculum were clay animation and digital storytelling projects, which provided opportunities to exercise creative expression through a non-traditional media. I presented my curriculum ideas at the state level professional art educator's conference hosted by the Florida Art Education Association each year. Leadership experiences such as these prompted my own continual learning as I searched for art sessions each year at the Florida Educational Technology Conference (FETC).

During that time I experimented with digital photography by taking my first online course through the University of Florida in 2004. The online format provided me with access to digital photography content where I could learn, experiment, and get feedback while never leaving my home. As a result of learning more about digital photography, I

pursued the development of the collaboration project with the online digital photo library of the Florida State Archives. This initiative lead the way for other schools to take part in a history based art project and was featured in the book, An Art Educators Guide to the Internet. In an effort to bring new ideas and initiatives forward at the local level, I served as President of the Marion County Art Education Association.

Scholarship in technology and art and recent online learning experiences proved valuable when I was chosen to evaluate and later completely re-develop the online middle school course, M/J Orientation to Art 2D (Appendix A), with Florida Virtual School (FLVS). M/J Orientation to Art 2D is a middle school art course that teaches the elements and principles of design as required by the standards set forth by the Florida Department of Education. M/J Orientation to Art 2D students access online content to learn concepts and then submit digital assessments. Students also produce works of art to demonstrate mastery of the concepts. These works of art (artifacts) are either scanned or photographed and then uploaded to the course enabling the teacher to assess student understanding.

After the development of the course, I was hired to teach full time online. With this experience I witnessed the potential that online learning in art had to offer students with limited access. It was also at this time that I completed both a Master and Specialist of Education degrees while focusing on upper level educational technology and art education courses- almost all completed “online.”

My article published in School Arts, Teaching Art Online is Virtually Possible! exemplifies scholarship in my effort to educate other art teachers about the value of online art instruction at the time others in my field seemed to reject the concept of

teaching a studio art course over the Internet (Werner, 2007). It was then that I started utilizing my understanding of data driven decision-making process and instructional design to use web 2.0 tools to teach art. One of my projects in particular, Virtual Recess, earned national attention as I was invited to share my practices before the Southern Regional Education Board's (SREB) technology committee (Atlanta 2008). From there other leadership opportunities opened up including presenting at conferences hosted by groups such as: National State Legislator's Association (NSLA) in Louisiana in 2008, International Council for K-12 Online Learning (iNACOL) October of 2008, and International Studies in Technology Education (ISTE), July 2008. The highlight of my professional career thus far was being selected to help write online teaching standards with the SREB. Taking leadership roles such as these has helped give me a global perspective of online learning.

While never completely leaving the field of art education, I did focus my professional career on virtual school management at FLVS. As a current Senior Manager of Florida Relations, I have gained insight into school district administrative perspectives. This role has allowed me the opportunity to address district concerns and determine implications for virtual solutions. During this time I have witnessed the decline in the number of art programs offered in my own region and throughout the State of Florida, while watching FLVS' art course enrollments triple. Teaching and learning art online is not only virtually possible; it could very well be the future for ensuring that all students have access to art education.

My preparation and development as a practicing professional has enabled me to provide tangible contributions to the field of educational technology and art education,

which will be highlighted throughout this study. Current teaching, scholarship, and leadership components will be presented in relationship to my niche, online art education and will be the bases for my effort to provide direction for the future.

Summary

Common to many K-12 online courses, M/J Orientation to Art 2D (Appendix A) is delivered in an asynchronous format. This format allows individuals to access content at anytime on-line but doesn't include live interaction with a teacher during instruction, which may be limiting for some students who struggle with basic art concepts (Offir, Lev, & Bezalel, 2008). Synchronous sessions may be helpful for these students, providing an opportunity for real-time dialog throughout the art making process (Sheldon, 2009).

Online learning expands educational options and provides equal opportunities for all learners, which may help explain why it has grown to serve an estimated 1,500,000 enrollments in 2009 (Picciano & Seaman, 2009). The National Education Technology Plan recommends that all students have e-learning opportunities. With forty-six states providing a state virtual school or other online options, K-12 online learning is a fast growing 'phenomenon.'

One of the most popular reasons for taking a particular online course is when the course is not offered at the traditional brick and mortar school (Watson, 2009). In Florida, limited options for taking art in physical school settings may be one factor associated with the increase in enrollments for online art courses (FLVS, 2009). Questions surrounding 'how to' teach art online are shifting to 'how do you teach it well?' (Werner, 2007).

Educational, technological, and social factors account for the effectiveness of K-12 online teaching and learning (Cavanaugh, 2005). Although methodologies vary in online courses, many agree that more research is needed to evaluate the effectiveness of online learning approaches since it appears to have a broad dependence on content and learner types (Patrick & Powell, 2009). Blended learning approaches that combined online and face-to-face elements, had a larger advantage than purely face-to-face and purely online (Means, Toyama, Murphy, Bakia & Jones, 2010).

Internet technologies are providing more elaborate applications, which enable greater interest and motivation in virtual art education courses (Lai, 2002). One example is a program that allows a student to create 3D animation. As currently conceived, my study will add another piece of information to the pool of thought regarding outcomes of a mixed method instructional approach by implementing synchronous learning into a purely asynchronous course. According to the International Society for Technology in Education (2007), by supporting a targeted group of students who are best supported with multiple means of engagement and representation live interactive art lessons serve to support all students. Findings from this project may have implications for the redevelopment of the course, virtual art teaching methods, and the field of online learning. The purpose of this study is to observe the effects that synchronous learning opportunities have on students in an asynchronous online art course.

Table 1-1. FLVS online art enrollments.

Year	AP Art History	M/J Orientation to Art 2D
06-07	198	240
07-08	610	456
08-09	608	615
09-10	856	665

CHAPTER 2 REVIEW OF LITERATURE

Art education has been identified as an essential component of a complete education for Kindergarten through twelfth grade (K-12) students (Skorton, 2007). Greater access to subjects such as art is one clear benefit of K-12 online learning (Picciano & Seaman, 2010). Congdon (2009) argues that shifts in art and education are necessary at this time of worldwide change. Designing high quality online courses, such as art, and implementing teaching strategies that enable all students to be equally successful is a challenge (ISTE, 2007). Teaching methods, course content, and course design vary for each online study resulting in evaluation of online effectiveness hard to measure (Patrick & Powell, 2009).

In order to study the effects that synchronous learning opportunities have on online students that struggle in an asynchronous art course, data will be collected through action research. Understanding the effects that synchronous instruction has on these students will help provide insight and affect future course design, teaching strategies, and delivery methods for this course and beyond. Research specifically related to teaching and learning art online is limited for K-12 grade students (Cavanaugh & Blomeyer, 2007). The goal of this chapter is to explore the current state of online learning within the context of existing research related to instructional delivery methods that used technology to teach art. To achieve this goal, this chapter is organized into four major sections. The first section introduces research to provide perspective of the current state of online learning. The second section highlights research on using technology to teach art and implications for teaching art online. The third section discusses mixed method online instruction in relation to student learning

outcomes. Finally, the critical component of this review appears in the last section as it sets the stage for my own research by picking up where other studies have left off. The purpose of this review of literature is to build my own inquiry and justify it within the existing body of knowledge related to synchronous teaching in an asynchronous online art course.

Exploring the Current State of Online Learning

Online learning is a type of distance education in which the teacher and learner are separated by time and physical space, with the purpose of expanding access and providing curricular opportunities (Cavanaugh & Blomeyer, 2007). The phenomenon of online learning continues to spread and grow each year (Barbour, 2009; Allen & Seaman, 2010).

Nationwide, many online learning programs have grown more than 25-50% over the previous year (Watson & Ryan, 2007). Around the country, school district administrators cite their primary motive for offering online courses is to expand course offerings (Cavanaugh & Blomeyer, 2007). As an example, students are requesting increased access to foreign language programs, such as Mandarin Chinese and Arabic. Given the shortage of qualified foreign language instructors with specific experience in these languages, online learning offers the opportunity for students to gain access to high quality instructors regardless of their geographic location and the limitations of the course offerings in their brick and mortar high school (Black, 2009; Watson & Ryan, 2007; USDOE, 2007). Today, nearly 40% of United States high school students take online courses that are not offered at their school (Project Tomorrow, 2009). Research shows that online students achieve at levels equal to those in traditional classrooms if given instruction of equal quality (Means, Toyama, Murphy, Bakia & Jones, 2010).

In some formats, online instruction overcomes time and space constraints of traditional educational methods. Considering the limitations and challenges associated with traditional methods of providing access to education, online instruction is one solution that has considerable merit (Florida Tax Watch, 2007). Individual students can be served with a wide variety of online classes that can be individually tailored to their particular needs (Cavanaugh, 2009). A 2008 Survey of U.S. School District Administrators highlighted administrator's rationale for offering online courses. The top two reasons were availability of courses not otherwise available at the traditional school and the ability to meet the needs of each individual student (Picciano & Seaman, 2008).

Using Technology to Teach Art Including Teaching Art Online

The U.S. Department of Education states that obtaining a meaningful arts education is part of getting the best education possible (Duncan, 2009). When making critical budget and program decisions, the National Education Secretary Duncan reminded public school officials that the arts are considered a core academic subject (Duncan, 2009). Despite advice given by Duncan, districts throughout the country are choosing to reduce or even eliminate art programs. A recent report indicated that by eliminating subjects such as art, the Toledo, Ohio school district estimated that cuts would help ease their 30 million dollar budget shortfall (Kirkpatrick, 2010). In Broward County, Florida, some schools have reduced art teachers to half time or eliminated their positions all together (Roland, 2010). Similar measures can be seen in Utah and New Jersey as well as other states around the country (Roland, 2010 & Tamer, 2010). Given the hard choices and prioritization required by the continuing fiscally conservative climate in the United States, there remain considerable challenges to providing art education in many school districts. Accessing art education online can provide an

opportunity to students in poor school districts. Research tells us that there could be opportunities to teach art online using more intimate, interpersonal, and interactive methods and that technology helps make art projects more accessible and practical (Akins, Check, & Riley, 2004; Gura, 2008).

Since the field is relatively new, studies show little agreement about a unified definition of technology in art education. Some describe technology as a tool used to produce art such as using computers to create animation, meaning that they've always been linked together (Winston, 1986). Others report that it is the responsibility of the art educator to use advanced technology, such as computers, to help prepare students for the 21st century (Bright, 1997). Further analysis of the literature included in this review revealed that there is also little agreement about the timeline of distance learning in art. Gregory (1997) reported that satellite instruction to art students began in the 1960s with a teacher being broadcast live from his or her studio into receiving classrooms at various locations (Gregory, 1997). Lai and Ball reported in 2004 that exploration into distance learning (online) with art education is in the initial stage.

One theme present throughout the literature is the acknowledged art teacher hesitance toward integrating technology into the classroom (Bryant, 2010; Delacruz, 2009; Roland, 2010). Of the various perceptions of technology and art presented within the literature, two areas of thought became clear: one is the perception that technology is intended as a tool for creating art and the other is technology as a tool for teaching art. Eisner (1983) helps us better understand the first area when he states that art teachers have a fear that technology encourages depersonalization and mass production relieving the need for the art specialist. Similar to teachers of other subjects,

Roland (2010) and Delacruz (2009) suggest that art teachers tend to teach in the manner in which they were taught, implying a continuum of teaching methods and strategies rather than implementing new strategies and tools such as technology. While the majority of research is related to technology as a tool for creating art, there are several studies, which illuminate the potential that technology has as a tool for accessing art. Using technology students can virtually visit online art galleries instead of viewing a few images in a textbook. Some studies stress the importance for educational reform within the art classroom stating the instructor can now include computer animation or virtually visit the Louvre to view the Mona Lisa (Gregory, 1997; Gura, 2008).

The Florida Virtual School (FLVS), K12 Inc, and Connections Academy, are a few of the K-12 online learning providers to offer art instruction. FLVS enrollment reports indicate that the number of students participating in Advanced Placement Art History and M/J Orientation to Art 2D have nearly tripled since 2006 when reports were made available. Gura (2008) states that accessing art education online can provide an opportunity to low performing, high minority and poor school districts that may not otherwise offer subjects like art. Teachers and others accept learning a subject like art history online, however they have a hard time conceptualizing how students can learn to produce art virtually.

Online Instructional Delivery Methods

Issues surrounding online learning have shifted from “if it is occurring” to “how it is being implemented” and to the resulting outcomes (Watson & Ryan, 2007; Cavanaugh, Barbour, & Clark, 2009). Like all technology, online learning cannot be effective without proper use (Krug, 2004) and school district administrators report concerns about course

quality to be a barrier for further rapid growth (Picciano & Seaman, 2009). Research tells us that it is currently being used in several ways across the nation. The top two reasons for using online courses were accessing courses not otherwise available at the traditional school and the ability to meet the needs of each individual student (Picciano & Seaman, 2008). Researchers admit that comparisons of online programs to one another are insufficient due to lack of common measures in calculating and reporting (Watson & Ryan, 2007).

Research states that most programs (65%) use an asynchronous method of delivery and 31% use a mix of both asynchronous and synchronous (Watson & Ryan, 2007). Online categories are becoming less distinct as virtual schools implement a mixture of delivery methods, like Odyssey Charter School whose students weekly meet face-to-face (Watson & Ryan, 2007). There is inconclusive evidence to support one method as superior.

Cavanaugh, Gillan, Kromrey, Hess, and Blomeyer (2004) hypothesized that since online learning is just as effective as traditional learning, we can assume that factors creating success in the traditional classroom can be implemented virtually. Offir, Lev, and Bezale (2007) conclude that different interactions in the learning process have different effects and report that the students prefer learning in a synchronous system. According to Moore and Kearsley (1996), as the level of dialogue increases, there will be an increase in the effectiveness of learning. Others profess that online synchronous methods do not yet match those of a conventional classroom (Simonson, Schlosser, and Hanson, 1999). What happens with a mixed method approach? Most district administrators believe that providing some face-to-face time can help supplement

issues related to student readiness in social and emotional development (Picciano & Seaman, 2009). Cavanaugh, Barbour, and Clark (2009) recently reported that due to the limited amount of empirical research, there is a need to establish best practices for online teaching strategies particularly in the area of synchronous delivery.

Expanding Current Research

One challenge I found in reviewing literature in Kindergarten through twelfth grade online education is the lack of empirical research especially in the area of art education. As a result, this review of literature moved from the narrow focus of online art education to the areas outlined in the first three sections: online learning, art and technology, and blended instruction. The study closest to my area of interest was that of East Carolina University student, Kathryn Sheldon who in 2009 investigated international trends and techniques used to teach studio art courses through online education. The goal of her study was to determine what was being taught in online higher educational art studio courses. Sheldon (2009) surveyed online studio art instructors in higher education institutions around the world. She asked questions related to trends and techniques used to teach art online.

Though there were notable limitations to her work, Sheldon's 2009 research compared responses related to average class sizes to the guidelines set forth by the Handbook for National Association of Schools of Art and Design. She assessed the amount of interaction and found it was comparable to that of a traditional class. This consideration may prove to be a valuable component of my own inquiry since research says that different levels of interaction produce differing effects (Offir, Lev, & Bezale, 2007).

While I found parallels within Sheldon's study to findings within this review of literature and my own professional experiences, there are areas that should be extended to better meet the needs of answering my own research question, "What effect does synchronous learning opportunities have on student in an asynchronous art course?" Lu (2010) reports that the best way to learn about technology is not to read and hear about it but to actually use and experience it. With an action research study in which data analysis is pushed by relevant literature, the resulting findings will enable me to expand currently reviewed literature while using experience as the vehicle for data collection. The next chapter describes the methods I used to determine effects of synchronous instruction on students in an asynchronous art course.

CHAPTER 3 METHODOLOGY

Recent research has demonstrated that by combining online and face-to-face elements, learning outcomes for students increase (Means, 2010). Experts agree that more exploration is needed to evaluate the effectiveness of online learning modalities and establish the related best practices (Patrick & Powell, 2009; Cavanaugh, Barbour, & Clark, 2009). By studying the effects of synchronous instruction on students in an asynchronous online course, this study will contribute to the needed research. The process of using literature to inform and expand my initial wondering helped build this review of literature and develop the following research design (Dana & Yendol-Silva, 2003). This chapter drew upon the suggestions of Herr and Anderson (2005) to frame the initial research question (What effects do synchronous learning opportunities have on students in an asynchronous online art course?) within existing literature and to anticipate directions the research might take. As such, this chapter will introduce the context, participants, methods, and ethical considerations associated with this project.

Context

I previously taught Florida Virtual School's M/J Orientation to Art 2D. Although teachers frequently communicate with students and parents as required by FLVS, the actual art lesson is taught in an asynchronous format. Students learn a concept, are given examples, and then are asked to apply their new knowledge by creating works of art. Students photograph, email, or fax their work and submit it digitally to the online art teacher. The regular teacher then grades the artwork by using an FLVS developed rubric for each lesson. The rubric is available to the students and they are encouraged to review it before submitting their artwork. If they chose to increase their score or have

not demonstrated mastery they can resubmit their work. As is common in many K-12 online courses, Florida Virtual School's, M/J Orientation to Art 2D is delivered in an asynchronous format. This format allows individuals to access content at anytime online but doesn't include live interaction with a teacher during this initial part of instruction. This lack of interaction may be limiting for students wishing to reinforce their newly acquired art concepts and for students that struggle with basic art concepts (Offir, Lev, & Bezalel, 2008).

Asynchronous art instruction concerning perspective may be more effective if opportunities for synchronous sessions are provided. Viktor Lowenfeld presented his research of child development in art in his influential book, Creative and Mental Growth. According to Lowenfeld, children around the age of eight to thirteen are developing drawings from beginning realism to more natural depictions (Figure 3-1). Children are beginning to learn how to draw with more detail and represent space. Lowenfeld found that they still desire to achieve more "adult-like" drawings (Lowenfeld, 1987). Art educator, Betty Edwards (1979) further developed Lowenfeld's stages with her own research in Drawing on the Right Side of the Brain. She described "The stage of realism" as being a time when children struggle with perspective as they learn how to see and she found that students seek help when drawings do not "come out right." In contrast to asynchronous instruction, synchronous online instruction occurs at the same time students are working in the course. Synchronous sessions may be helpful for students, providing an opportunity for real-time dialog throughout the art making process, with immediate answers to questions (Sheldon, 2009). Having previously

taught M/J Orientation to Art 2D, I wondered if synchronous instruction would be a more effective way to present a lesson on perspective.

Mrs. C, the regular teacher for this course is a National Board Certified, K-12 Art Teacher who serves as the art mentor for her team. This 52-year-old instructor has a background in design before becoming a certified K-12 art teacher. She earned a Bachelor of Science degree from Florida State University in Visual Arts-Interior Design and a Master of Arts degree in Elementary Education from the University of South Florida. She had 10 years teaching experience before coming to Florida Virtual School. She has taught M/J Orientation to Art 2D for 4 years and currently teaches only this course. Serving on the Course Refresh Committee (FLVS course update group) has helped to improve the course throughout her tenure. She is considered a veteran FLVS art teacher since she has taught the course the longest.

Lieberman & Miller (1999) state that in order to bring about meaningful change, it must relate to students and their success in schools while acknowledging the needs and concerns of teachers. After collaboration with the regular teacher for M/J Orientation to Art 2D, the lesson on one-point perspective was selected as being beneficial for students. From my home studio, this lesson was taught on a regular basis at different days and times throughout several weeks. Much like a personal art tutoring session, students used emoticons to ‘raise their hand’ to ask questions and acknowledged understanding by talking into a microphone or typing their responses in the chat area.

Overview of M/J Orientation to Art 2D

The Florida Department of Education designed the framework for this 6th-8th grade course (Course Number: 0101000) to enable students to communicate ideas and concepts through two-dimensional media, emphasizing composition, and demonstrating

a fundamental knowledge of drawing, painting, and printmaking techniques. The requirements of this course are addressed in visual arts benchmarks included in the Sunshine State Standards (Appendix A).

Like all Florida Virtual School courses, M/J Orientation to Art 2D has a motif. The comic strip motif of this course directly ties in to the major topics and concepts presented (Appendix A). Each lesson consists of three parts: Explore, Imagine, and Create. Within the ‘Explore’ page, new ideas are introduced (Appendix B). Sketchbooks are often used with the “Imagine” page, as the student exercise the new idea through a guided practice activity. Student sketchbooks become the ‘textbook’ for the course. The “Create” tab provides students with an opportunity to be creative and use new skills in an assignment. All assignments within the course have a rubric and self-checks to indicate expectations.

In order for an instructor to see the assignments, students are required to scan or take a digital photograph of their work (artifacts) and upload it to the course. From this image, the regular teacher assesses the students’ artifacts by using a standardized rubric (Appendix C). Feedback is given within 48 hours and is available to students at anytime within the course. As a half credit course, the recommended traditional pace is sixteen weeks with a two week vacation option. Students may accelerate or extend their pace by requesting this option with an FLVS instructor.

As most FLVS students take only two online courses in their academic career, many taking this course are new to online learning (FLVS Enrollment Summary, 2010). This makes the initial teacher contact an important part of the experience; therefore students are required to have a “Welcome Call” with their instructor and a parent before

being activated into the course. Once activated, the student has a twenty-eight day grace period in which to ‘try’ the course. If for any reason the student wants to withdraw, they can do so within the first twenty-eight days without penalty. If a student withdraws after twenty-eight days they are issued one of two grades. If they have completed more than 50% of the course they are issued a “CF” (Complete Failing). If they have completed less than 50% of the course, they are issued a “WF” (Withdraw Failing). In order to earn a passing grade in the course, students must show evidence of mastering the Sunshine State Standards. Skill mastery is demonstrated through assignments and determined by a scored rubric (Appendix C). FLVS will not issue a final grade without the student completing the assignments. Historically, data shows that nearly ten to 20% of the students withdraw without penalty or failing (Table 3-1).

Students demonstrate understanding in a variety of ways in M/J Orientation to Art 2D. While this is a studio course, meaning that students create works of art, they also do modest research, write, discuss, identify, and evaluate other works of art. FLVS instructors have routine phone calls with students to build relationships, assess understanding, provide updates, and ensure academic integrity. Teachers may ask students to resubmit assignments or students may on their own chose to work towards a higher level of mastery. The resubmission of assignments is encouraged in this course. M/J Orientation to Art 2D is an asynchronous course so students can work anywhere they have Internet access and at any hour of the day as there are no “live” lessons. Discussion-based assessments and monthly phone calls are the only required teacher interaction opportunities within the course.

Based on my own anecdotal teaching experiences in M/J Orientation to Art 2D, students are generally successful and satisfied with this course since during the final phone call a common question is, “Is there an Art 3D course?” Synchronous instruction may have provided these students an opportunity to develop their skills at a higher level. There are, however, students that struggle in this course and synchronous instruction may help them acquire the skills necessary to successfully complete the course. Indicators of struggle include: multiple phone calls and emails asking questions related to assignment directions, halting progress in the course for no apparent reason, and unsatisfactory rubric scores on submitted assignments. In response, teachers answer questions in phone calls and emails, give feedback specific to improvement areas, suggest further online resources, and encourage trying again. A majority of students do resubmit until mastery, as shown by the high percentage of students who complete the course with an “A” or “B” (Table 3-1).

The development of this action research inquiry stems from my desire to provide for more effective online instruction for students in M/J Orientation to Art 2D resulting in students that fulfill their potential in this course. Dana and Yendol-Silva (2003) state that change in teaching practice can result from systematically studying teaching strategies and techniques since that may lead to discoveries. Improving quality and promoting equality in curriculum and instruction are part of the building blocks for transforming schools and teaching (Lieberman & Miller, 2003). This inquiry addressed the need for establishing best practices for online teaching strategies particularly in the area of supplemental synchronous instructional delivery in asynchronous courses (Cavanaugh, Barbour, & Clark, 2009).

Participants

The study population consists of one hundred thirty-five students, registered in M/J Orientation to Art 2D. All students are Florida residents in public, private, or homeschooled settings. Self-reported demographic information indicated that of the group, 57% were registered as homeschooled. Voluntary participation in this study was available to any student of the course with parent consent. All students were given information about the availability of an extra live online art lesson. They were invited to attend through emails and course announcements. They were also personally reminded during phone calls from the regular teacher.

In order to plan for ethical challenges that may occur in relation to using students in this study, parents of research subjects will be required to provide consent and research subjects will be required to give assent to participate (Herr & Anderson, 2006). Parents or students that don't chose to participate won't be worried about the negative impact on the student's course grade since I am not the teacher of record. Both the University of Florida's Internal Review Board and Florida Virtual School's Research Request Committee have formally approved this study (Appendix C).

Research Overview

This study examined the effects supplemental synchronous instruction had within the context of Florida Virtual School's M/J Orientation to Art 2D and will contribute knowledge for possible practices and theories which is the purpose of action research (McNiff & Whitehead, 2009). Action research is an appropriate choice for this project since I am a professional practitioner working to improve my own practice and action research allows the professional practitioner to control the development and methodology of the research. The purpose of the next section is to describe the

conceptual framework that guided data collection and analysis within this action research project (Herr & Anderson, 2005).

One forty-five minute supplemental synchronous session, which repeated the asynchronous Lesson 2.05 on one-point perspective, was available to any student wanting to participate. Each synchronous session was recorded and transcribed immediately into field notes. After that, I entered my thoughts and feelings in my reflective journal. In their book, Dana and Yendol-Silva (2003), recommend certain questions that should be answered in a reflective journal to help to analyze and interpret data, while considering implications of the findings. The reflective journal entries and field notes were used during the study to improve instructional delivery and again after the study for qualitative analysis. Within two weeks of the final session, I obtained all rubric scores for Lesson 2.05. These were used in quantitative analysis.

Data Collection

This study obtained data qualitative data from observation field notes and entries in my reflective journal. I collected quantitative data from rubric scores. Each synchronous session was recorded using a feature in the web conferencing tool Blackboard Collaborate. I reviewed the recordings after the lessons and wrote field notes transcribing all observed actions (Meyers & Rust, 2003). Without commenting on why the action occurred or how, these notes document ‘what’ happened by scripted dialog and recorded questions and answers (Dana & Yendol-Silva, 2003). Later coding of the field notes into usable raw data allowed me to organize them into units for future analysis as described in Chapter 5.

Next to help make quantitative connections between teaching methods and student achievement, scored rubrics were used (Meyers & Rust, 2003). Students

received scored rubrics upon submission of artifacts produced during their lesson (Appendix E). Since Florida Virtual School instructors must use these as a standardized assessment of mastery, the rubrics used for this study were required and used within M/J Orientation to Art 2D. Some students had an additional scored rubric since they had already received a score from their first submission of the assessment for Lesson 2.05. The rubric, worth twenty points, is broken down into three parts: completing all steps, care of submission, and creativity (Appendix C).

Mrs. C used visual guides and knowledge of child development in art to accurately score the work (Figure 3-1 and Figure 3-2). Since students that take this course have differing art education experiences and may be at varying stages in artistic development, the score rubric is general and is set up so that all students have the opportunity to be successful. For example, a hypothetical sixth grade student who followed all the steps, submitted the work neatly, and added elements of creativity beyond the example shown in the lesson can achieve a higher score than a hypothetical eighth grader who is developmentally further advanced but didn't follow all the steps. Mrs. C was the only scorer of the rubrics, which ensured scoring consistency.

Finally, Dana and Yendol-Silva (2003) recommend keeping reflective journals throughout action research. Entries contained within the journal provided insight into my instructional delivery methods and illuminated my thoughts capturing ideas to enhance student learning. My reflective journal provided contemporaneous entries about what I was thinking throughout the study and enabled to focus and shape the study as it proceeded.

Data Analysis

In order to focus and shape issues studied, an ongoing analysis of data provides more relevance as recommended by Herr and Anderson (2005) and Glesne (2006).

The following analysis took place as the study progressed. After reviewing each recorded session, I transcribed all actions in to field notes. I recorded my thoughts concerning the field notes into my reflective journal and I used it to evaluate my instructional delivery. I noted problems and solutions, which were implemented in the next session.

Throughout the study I consulted weekly with the regular teacher who was a constructively critical friend. This was necessary to help challenge my analysis and validate findings (Herr & Anderson, 2005 McNiff & Whitehead, 2006). We discussed the synchronous sessions and their impacts on the students. Once all sessions were completed, I coded the field notes into raw data. Then, I used my reflective journal to develop patterns and connections between the coded field notes. Finally the codes were sorted into themes, patterns, and categories helped illustrate, organize, and communicate raw data (Dana & Yendol-Silva, 2003). All this became the basis for the theory I developed concerning synchronous learning opportunities for students in an asynchronous course.

Quantitative data was analyzed by comparing scores from students' pre and post lesson rubrics. The results provided information about whether the difference between the pre and post assessment mean scores was statistically significant or due instead to random chance. The triangulation of qualitative field notes and reflective journal entries, along with quantitative rubric score analysis provided integrity to the (What effects do

synchronous learning opportunities have on students in an asynchronous online art course?).

Summary

This chapter gave an overview of the methods used during my action research study. The context for data collection is given in Chapter 4.

Table 3-1. FLVS M/J Orientation to Art 2D enrollment* summary

Year	N	Complete	Complete (F)	Withdrawn Failing (WF)	Withdrawn No Grade (WNG)	Never Activated
2007-2008	1034	453 (43.8%)	34 (3.0%)	118 (11.4%)	195 (18.8%)	234 (22.6%)
2008-2009	1183	615 (51.9%)	22 (2.0%)	116 (9.8%)	219 (18.5%)	211 (17.8%)
2009-2010	1389	665 (47.8%)	16 (1.1%)	138 (9.9%)	268 (19.3%)	302 (21.7%)

*Enrollment= .5 credit

Table 3-2. FLVS M/J Orientation to Art 2D grade distribution summary

Fiscal Year	Final Letter Grade	Total
2007-2008	A	337 (74.4%)
2007-2008	B	16 (3.5%)
2007-2008	C	2 (>1%)
2008-2009	A	557 (90.6%)
2008-2009	B	52 (8.5%)
2008-2009	C	9 (1.5%)
2009-2010	A	541 (81.4%)
2009-2010	B	81 (12.2%)
2009-2010	C	11 (1.7%)

Perspectives									
Drawing Development in Children									
Viktor Lowenfeld Betty Edwards	2 3 4 6 8 12 14 yrs	2 years	3 years	4 years	6 years	8 years	10 years	12 years	14 years 16 years
Viktor Lowenfeld <i>Creative and Mental Growth</i>	Scribbling stage First disordered scribbles are simply records of enjoyable keepsake activity, not attempts at portraying the visual world. After six months of scribbling, marks are more orderly as children become more engrossed. Signs begin to name scribbles, an important milestone in development.	The preschematic stage First conscious creation of form occurs around age three and provides a tangible record of the child's thinking process. The first representation of a person is usually with circle for head and two vertical lines for legs. Later other forms develop, clearly recognizable and often quite complex. Children continually search for new concepts so symbols constantly change.	The schematic stage The child arrives at a "schema," a definite way of portraying an object, although it will be modified when he needs to do so. Representations are simple schemes representing the child's active knowledge of the subject. At this stage, there is definite order in space relationships; everything sits on the base line.	The gang stage: The dawning realism The child finds that schematic generalization no longer suffices to express reality. This dawning of how things really look is usually expressed with more detail for individual parts but is far from naturalism in drawing. Space is uneven and distorted, overlapping objects in drawings and a horizon line rather than a base line. Children begin to compare their work and become more critical of it. While they are more independent of adults, they are more anxious to conform to their peers.	The pseudo-naturalistic stage This stage marks the end of art as spontaneous activity as children are increasingly critical of their drawings. The focus is now on the end product as they strive for greater "adult" naturalistic drawing. Light and shadow, folds, and motion are observed with mixed success, translated to paper. Space is depicted as three-dimensional by diminishing the size of objects that are further away.	The period of decision Art at this stage of life is something to be done or left alone. Natural development will cease unless a conscious decision is made to improve drawing skills. Students are critically aware of the immaturity of their drawing and are easily discouraged. Lowenfeld's solution is to enlarge their concept of adult non-representational art and art occupations besides painting (architecture, interior design, handcrafts, etc.)			
Betty Edwards <i>Creative and Mental Growth</i>	The scribbling stage Random scribbles begin at age one-and-a-half, but quite quickly take on definite shapes. Circular movement is first because it is most natural, anatomically.	The stage of symbols After weeks of scribbling, children make the discovery or art: a single symbol can stand for a real thing in the environment. Circular form becomes a universal symbol for almost anything. Later symbols become more complex, reflecting child's observations on the world around him.	Pictures that tell stories At four or five, the child begins to tell stories or work out problems with her drawings, choosing basic forms as needed to express meaning. Often once the problem is expressed, the child feels better able to cope with it.	The Landscape By five or six, children develop a set of symbols to create a landscape that eventually becomes a reality. A blue line and sun at the top of the page and green line at the bottom become symbolic representations of the sky and ground. Landscapes are composed carefully, giving the impression that removing any single form would throw off the balance of the whole picture.	The stage of complexity At nine or ten years, children try for more detail, hoping to achieve greater "realism." Concern for where things are in their drawings is replaced by concern for how things look. Fantasy figures, fairies, goblins, super heroes, etc. for boys; models, horses, landscapes, etc. for girls.	The stage of realism The passion for realism is in full bloom. When drawings do not "look real" (look real) they seek help to resolve conflict between how the subject looks and previously stored images. This prevents their seeing the object as it really looks. Struggle with perspective, foreshortening, and similar spatial issues as they learn how to see.	The crisis period The beginning of adolescence marks the end of artistic development among most children. They are still at "yesterday things right." Those who do manage to weather the crisis and learn the "secret" of drawing will become absorbed in it. Edwards believes that proper teaching methods will help children learn to see and draw and prevent this crisis.		

Figure 3-1. Drawing development in children chart used by FLVS Art teachers

CHAPTER 4

CONTEXT FOR DATA COLLECTION THROUGH SYNCHRONOUS SESSIONS

The purpose of this chapter is to detail the story of my research into the effects synchronous learning opportunities have on students in an asynchronous online middle school art course, M/J Orientation to Art 2D. Experts agree that more research is needed to evaluate the effectiveness of online learning modalities (Patrick & Powell, 2009; Cavanaugh, Barbour, & Clark, 2009). After gaining experience teaching the Florida Virtual School (FLVS) asynchronous online art course, M/J Orientation to Art 2D, I began wondering whether students could be more successful if they were given a synchronous lesson to supplement the lessons taught in the traditional online course. By studying the effects of synchronous instruction on students in an asynchronous online course, my research will contribute to the body of knowledge that needed further evaluation.

Planning

I began my inquiry by interviewing the current online instructor for M/J Orientation to Art 2D. During my interview, she informed me that Lesson 2.05, All About Space (Appendix B), generated a great deal of student questions. We collaboratively chose this lesson for my research project since it appeared to me that it would provide a basis for determining the effectiveness for synchronous instruction since we felt like students might benefit from seeing the process live. I obtained permission from the Internal Review Board of the University of Florida and from the Research Review Board of FLVS to a synchronous learning experience to compliment Lesson 2.05, All About Space, to any student who wanted to participate (Appendix C).

Based on my experiences as an M/J Orientation to Art 2D instructor at Florida Virtual School, I know that students review their course grades on a frequent basis and are given the option to resubmit. They are encouraged to review and resubmit their assessment if they haven't demonstrated mastery or if they chose to increase their grade. Knowing this, I realized the rubric scores provided an opportunity for me to quantitatively measure the effect of synchronous instruction on students in an asynchronous course by using these rubric scores. Since students can resubmit assessments from their asynchronous lessons, I decided to provide the same lesson in a supplemental synchronous format. I used Wiggins and McTighe's (2005) framework for designing classroom instruction as I planned how to convert the asynchronous version of Lesson 2.05 from the M/J Orientation to Art 2D course in to a synchronous session. I considered the 'big idea' (principal of space) and what I wanted the students to know and be able to do (create a one-point perspective drawing showing space). The planned learning activity was then planned by using the 'WHERE TO' strategy to help students achieve the desired results, which were measured by the course rubric.

In order to accommodate the most students, the sessions were held at various times and dates and were similar in design lasting about 46 minutes (Table 4-1). To obtain students for study, I invited students to attend the live supplemental lesson. I sent the recruitment email (Figure 4-1) to students and parents through the art course email system stating the only requirement to attend the synchronous less was to sign and return both a student assent form and a parent consent form (Appendix D).

Synchronous Art Sessions

For a period of one month, I offered eight synchronous online art sessions to FLVS students enrolled in M/J Orientation to Art 2D. Using the web conferencing tool

Blackboard Collaborate (Figure 4-2), I taught Lesson 2.05, All About Space, which provided instruction for the drawing technique of One-Point Perspective. Because students did not attend three of the offered sessions, I was able to collect data related to the effects of synchronous lessons to asynchronous online art students a total of five times. After each session I reviewed the recordings and transcribed the session by preparing field notes (Figure 4-3). I also made entries in a reflective journal (Figure 4-4) throughout the data collection process and specifically after each synchronous lesson. This journal was used to capture my thoughts and feelings concerning the synchronous lesson and how I presented the material as well as how to revise it for the next session. After data collection my entries were also used to organize the field notes used for qualitative analysis. Both the field notes and reflective journal entries were later used in qualitative data analysis as described in Chapter 5.

The students were required to provide signed forms in order to be included in the research project. Once receipt of both the parental informed consent and student assent (Appendix D) was verified, students accessed Blackboard Collaborate with a URL that I provided. Each synchronous session consisted of the same components; I welcomed them, introduced myself, summarized the purpose of the study, and then provided instruction using the same asynchronous Lesson 2.05 materials available via the online course. Instruction began by discussing visual space, providing examples, and demonstrating a step-by-step drawing of one-point perspective. Although the asynchronous class offered the students optional prerecorded videos to view, my sessions provided opportunities for students to ask questions and interact with both the teacher and other students by communicating in the chat area and by writing on the

whiteboard. For comparison of data collection, I planned the sessions to be as similar in length as possible (Table 4-1). Sessions averaged 47 minutes, with a standard deviation of 6.09.

Each synchronous lesson mirrored the asynchronous lesson contained in the course, which is grounded in Discipline Based Art Education (DBAE) as it includes the following components: art history, art criticism, aesthetics, and art production (Reynolds, 1992). Each synchronous lesson was taught using a similar order. First, the students reviewed the objectives of the lesson, by getting an overview of “What is Space?” Next, we reviewed examples of artists who used space in their work. Finally, we created a one-point perspective drawing together. The students followed step-by-step while I drew an example on paper under the web camera and then I repeated the drawing again on the whiteboard. I encouraged them to refer to the assessment-scoring rubric (Appendix E) already in the online course before submitting or resubmitting the drawing they had completed. A detailed narrative of each of the eight synchronous sessions is located in Appendix F.

Summary

This chapter provides context for qualitative data collection throughout eight synchronous sessions by creating field notes and writing reflective journal entries. Analysis of this and quantitative data from Lesson 2.05 rubric scores are presented in the next chapter.

Table 4-1. Synchronous session details.

Session	1	2	3	4	5	6	7	8
Attendees	2	0	0	0	3	3	4	5
Day	Wed	Tues	Wed	Sun	Mon	Tue	Tues	Fri
Time	11 AM	8 PM	9 AM	4 PM	8 PM	10 AM	5 PM	10 AM
Duration	49	NA	NA	NA	45	47	43	49

Hi, Art 2D!

There is less than 1 week before our very first LIVE Art lesson. Come join the fun!

On Wednesday, 3/16 at 11 AM, I will teach lesson 2.05 LIVE from my own Art studio and YOU are invited too!

I am finishing a research project at the University of Florida about teaching Art online. This project may help me learn better ways to teach Art online. If you chose to participate, you'll be able to complete or resubmit 2.05 in the course. Or, you are welcome to just watch. Either way, the University of Florida requires ALL researchers to have signed permission forms. Please return the signed (attached) form if you'd like to join.

Once you return the form, I'll send you the Elluminate link. Please let me know if you have any questions.

Hope to "see" you there!
Ms. Polly

Polly Haldeman, FLVS Regional Liaison
phaldeman@flvs.net
407.513.3587 ext.4341

Figure 4-1. Example of recruitment email sent to students.

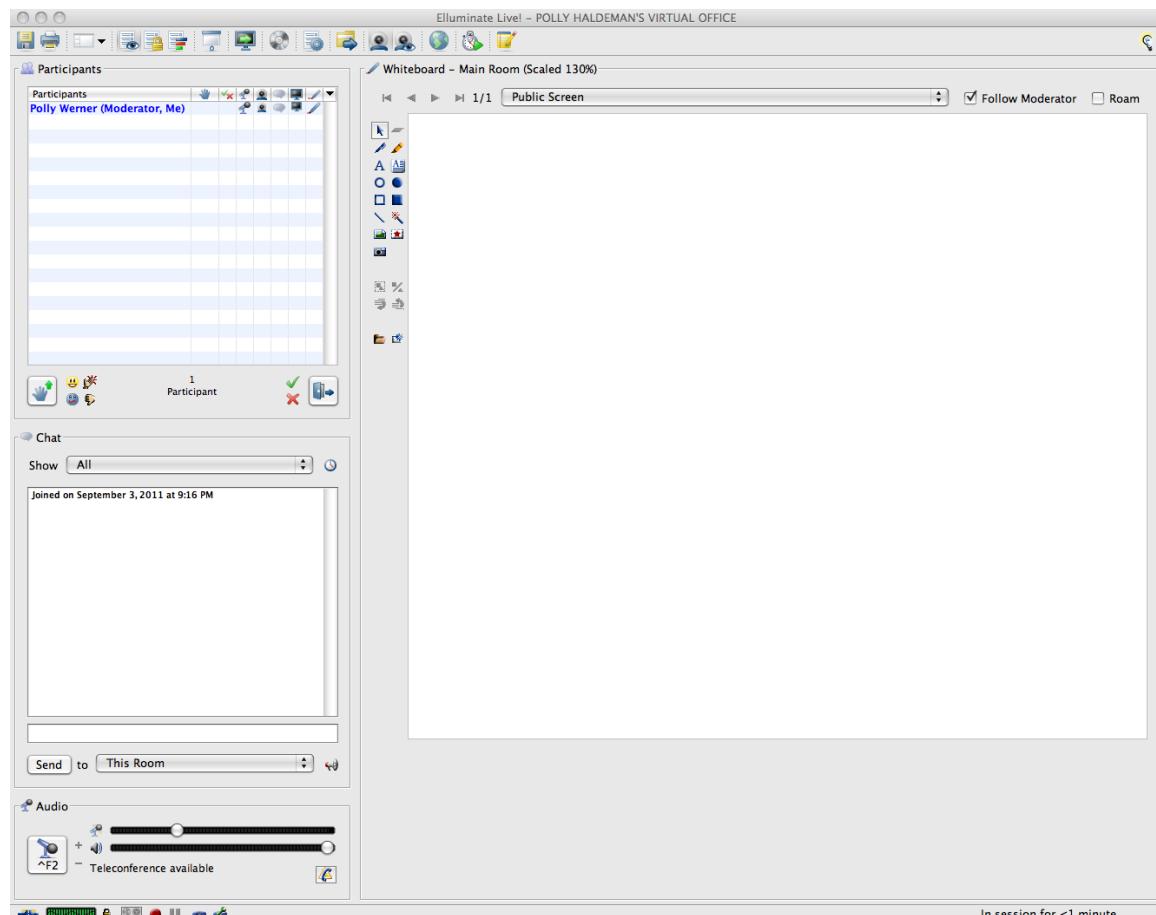


Figure 4-2. Screen shot of the web conferencing tool, Blackboard Collaborate.

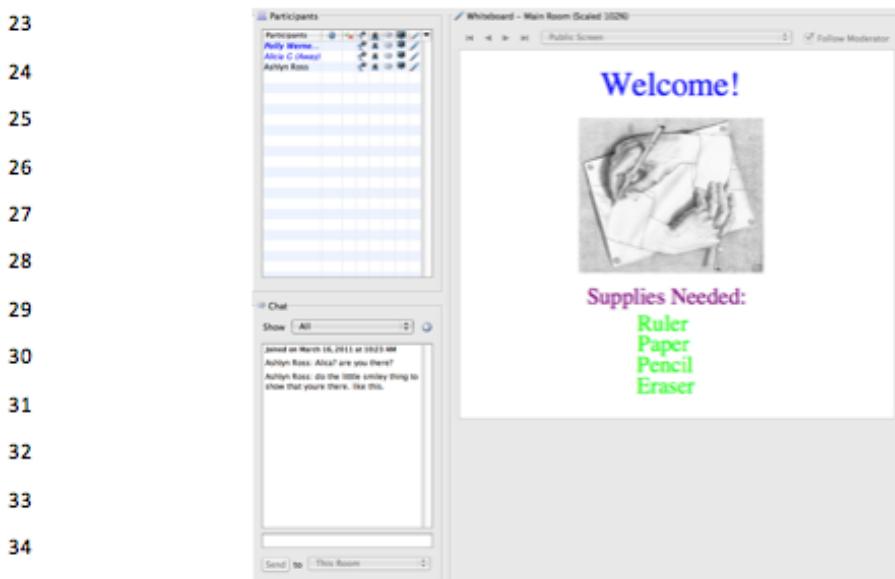
Researcher Name: Polly Werner Haldeman
Protocol #: 1

Observation Site:
Elluminate Session

Study Name: Synchronous Art Lesson
Observation Date: March 16, 2011: 11 AM

Protocol Completion Date: April 26, 2010

1 [Focus statement] This is my first set of field observation notes.
2 I hope to make my observation notes detailed, complete and
3 descriptive. I will pay close attention to the interaction from
4 and between students attending the session. Since I am a
5 participant/observer during this study, I will refer to myself as
6 "The Observer" and will indicate my own behavior in *italics*.
7
8 [General Setting] Observations were recorded via Elluminate
9 (web conferencing tool) during the live art lesson. Elluminate
10 consists of a main room for the participants with a white board,
11 chat area, and a live video from my home studio. Students
12 come to Elluminate at a variety of ability levels of which I am
13 unaware of since I am not their teacher of record.
14
15 I joined the Live Art Lesson session at 10:23 AM after setting up
16 and leaving again. When I returned, [REDACTED] had decorated the
17 whiteboard screen with doodles and notes to other participant,
18 [REDACTED]. She wrote things like "Hi! So glad you're here [REDACTED]"
19 [REDACTED] "do the little smiley thing to show that you're there.
20 like this." She chatted that she was booooooooooooorrrrrreeeedddd being by herself. After 3 minutes, I cleared the whiteboard with
the exception of what I already had (see below).
21
22



1

Figure 4-3. Sample page from field notes.

Session #1 (3/16/11- 11 AM)

Polly Werner Haldeman
Author

Logistics: Only two kids? Wow, wonder why? There were several questions about the UF permission forms...I wonder if that prohibited students from inquiring to show?

Technique: I realized after I had already started that I should NOT have included a road in my example. I should've concentrated on a shape and allowed them to figure out what else to include. I got a little stumbled on the buildings and figured out a better way for next time. I also realized after viewing the recording that I did not stop and check for understanding which may help give students an opportunity to speak up with questions.

Other: The students were thrilled with seeing me work and seeing my face & space. It appears to me that they are fascinated and maybe even a little lonely.

Communication: Emailed class 10 days prior to event explaining the sessions. I asked them to message me with any questions and return the signed form if they wanted the URL to attend. I received several inquiries and several had issues with returning the form.

Section 1
Section 2
Section 3
Section 4
Section 5
Section 6
Section 7
▶ +

Figure 4-4. Page from reflective journal.

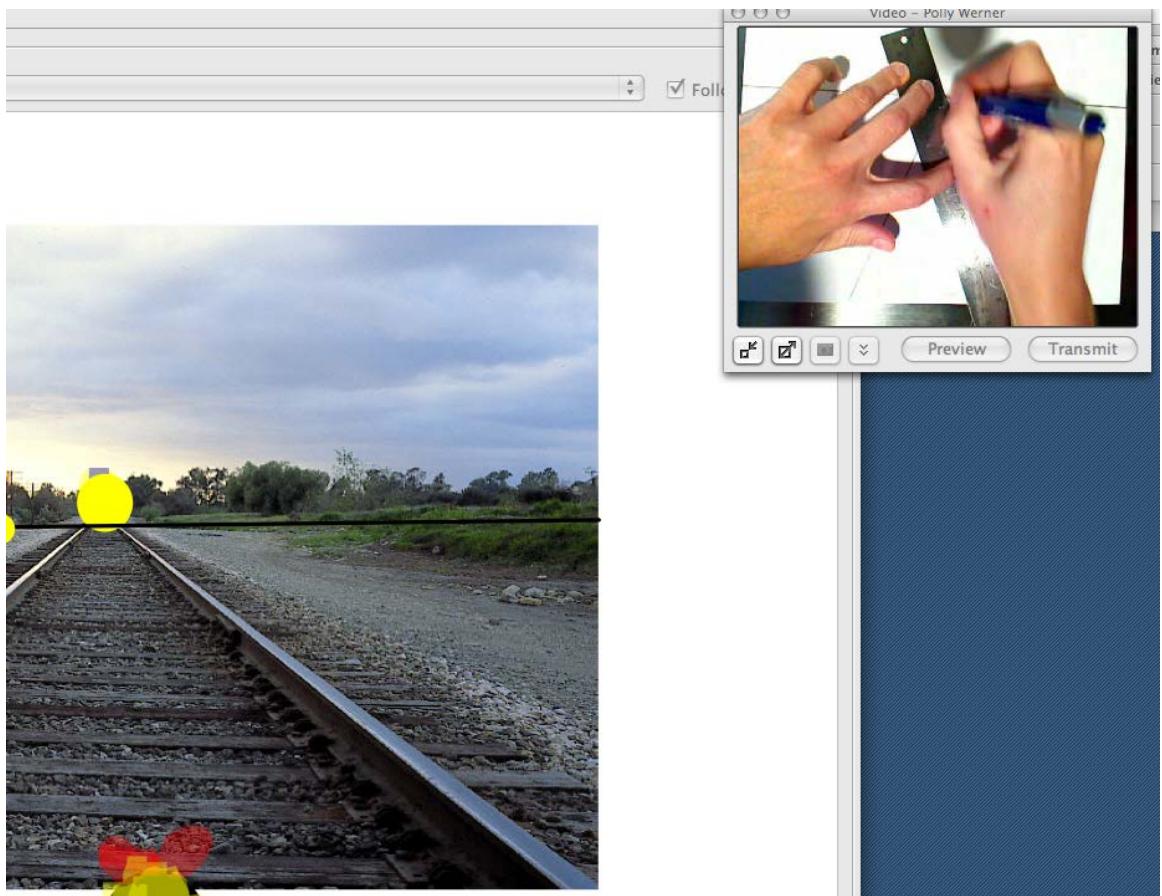


Figure 4-5. Teaching demonstrating drawing via online video.

Have you gotten a 20/20 for lesson 205? If not, join us for the last LIVE class for now on this lesson -one 1 point perspective. Earlier today, you received an email about a LIVE online class! Come join it at 10 AM on Friday! You will complete Lesson 2.05. We'll work together for about 30 minutes and you'll be done!



Copy and paste this address in to your Internet Browser:

<http://tinyurl.com/liveartlesson>

Make sure you have paper, a pencil, and a ruler ready to go!

This live class will be in an "Elluminate" room.

"Elluminate" is a virtual classroom where many FLVS teachers have meetings and special sessions to work on projects. If you have never done an Elluminate session before, you will need to download the "Java" software to run it. Don't worry, it is right on the link below that you will click, and will take about 5 minutes or so to get you in. If you have spyware programs, they may stop this. When you click the link you'll see a "lightbulb" and it may ask you if it should download-- just tell it yes or "Allow". Loading the Elluminate session may take a few minutes so be patient.

>You'll be asked for your name. Please LOG IN: FIRST NAME & LAST NAME.

Once you are in, you will see your name on the left along with others, and on the right, a slide that welcomes you (or a white screen if you are really early). We will cover lesson 205 in 30 minutes!! (If you have already completed this assessment with a 20/20, please disregard this message.) You are cutting edge! This is how some college classes are given but for you - it's free! WOO HOO! Still have questions? Watch this video:



So, set your alarms, hang notes around the house and log in at 9:50 am tomorrow--Friday Morning April 8!



Figure 4-6. Example of email announcement sent by the teacher.

Hey Polly, [REDACTED] LOVED the session. He has seen me do Blackboard Collaborates for years but has never been able to participate in one himself. He was easily able to follow your directions and really felt a part of the session.

Figure 4-7. Email from parent of session attendee.

CHAPTER 5 RESULTS

This chapter describes the results of an action research study that examined the effects a synchronous learning opportunity on students who were enrolled in an online middle school asynchronous art course. This chapter is divided into several sections. The first section provides details of the studied population and sample. The second section describes the synchronous art sessions. A third section contains the results obtained from data collected through the use of field notes, reflective journal entries, and the comparison of rubric scores from student artifacts. Data triangulation is then described as a means for validating the study. The last section summarizes the findings as they relate to the research question.

Research Question

What effects do synchronous learning opportunities have on students in an asynchronous online art course? Recent research has demonstrated that by combining online and face-to-face elements, learning outcomes increase for students but more exploration is needed to evaluate those outcomes (Patrick & Powell, 2009; Cavanaugh, Barbour, & Clark, 2009; Means, 2010). This study examines the effects synchronous instruction have within the context of Florida Virtual School's M/J Orientation to Art 2D course and will contribute information concerning possible new pedagogical practices and theories while helping to improve my own practice and the practice of instructors at FLVS.

Synchronous Art Sessions

For a period of one month, eight synchronous online art lessons were offered to students through use of the web conferencing tool, Blackboard Collaborate. I taught

Lesson 2.05, All About Space, which concerned the design principle of space a total of five times out of the eight times offered, since students did not attend three of the offered sessions. These were recorded which allowed me to review all actions after the session was over.

Each session consisted of the same components. First, I welcomed the students, introduced myself, and explained the purpose of the session. Next, I discussed visual space and provided examples. I followed then with a step-by-step demonstration of drawing one-point perspective both on the whiteboard and again with paper and pencil under a web camera. Each session provided opportunities for students to ask questions and interact with both the teacher and other students by typing in the chat area and by writing on the whiteboard. The sessions detailed in Table 5-1 were similar in length lasting an average of forty-seven minutes, with a standard deviation of 2.61 and a range of 6 minutes.

Population & Sample

On March 16, 2011, Mrs. C's M/J Orientation to Art 2D course had 135 assigned students. Since Florida Virtual School is in session year round and students can start and complete a course at anytime, the number of assigned students in any course can fluctuate. At the time of data analysis, seventy-one students had completed Lesson 2.05, which was the lesson used in this study. Regardless of their progress in the course, all students were invited to participate in an online, synchronous session that covered Lesson 2.05. The only requirement to participate in the study was to submit signed and dated parent consent and student assent forms. To maximize outreach, eight online sessions for Lesson 2.05 were offered throughout a one-month period of time (March 16 to April 8, 2011) at a variety of days and times.

Several forms of outreach were used to recruit student volunteers including; email solicitations from the teacher and me, announcement page advertisements visible to all students as they logged in to their course, recommendations to attend the sessions (which were included within assignment feedback given by the teacher) and lastly, verbal invitations were made by the course instructor, Mrs C, during phone conversations with students and parents. Twelve students, which accounted for 9% of the students active in Mrs. C's course, attended the synchronous sessions, with two of the twelve attending more than one session. Of the two that attended multiple sessions, one was a public school student who attended two sessions due to scheduling conflicts, while the other, a homeschooled student, attended all five.

Nine students or 75% of the sample consisted of homeschooled students. Of those students, six or 66% took this course as part of their first online learning experience with Florida Virtual School. Five or 33% of the students were registered as sixth graders. Of the remaining six, three were seventh graders and three were eighth graders. One student was registered as a second grader. Table 5-2 details the participants in order of their attendance to the live lessons.

Description of Data

Action research is a cyclic process starting with identifying a concern, trying an alternate way of addressing the concern, reflecting on what happened, and based on those reflections, trying a new way that may or may not be successful (McNiff & Whitehead, 2009). Three data collection tools were used during the study. Field notes (individual notes on everything that happened in the recorded synchronous session), reflective journal (entries on my thoughts and feelings concerning the field notes), and rubric scores (based on required student submissions graded by their teacher), were

used in order to determine if synchronous learning opportunities had an effect on students in Florida Virtual School's M/J Orientation to Art 2D course. The rubric scores of student assignments were used in quantitative analysis, which helped inform qualitative findings. Field notes and reflective journal entries were used for the collection qualitative data. Since the reflective journal entries provided insights into the phenomena described in the field notes, they were used simultaneously in planning and evaluation as described later.

Field Notes & Reflective Journal Entries

Immediately following the synchronous sessions, I reviewed the recordings and transcribed them into field notes (Figure 5-1). The field notes were a collection of phenomena (Figure 5-1), which I documented for later organization and analyzed after all teaching sessions were complete. Once the field notes were taken after each session, I made entries in my reflective journal to document my thoughts and feelings regarding the sessions (Figure 5-2).

The reflective journal entries provided ongoing analysis both after each session of the study and after the study had been completed. McNiff and Whitehead (2009) state that reflection involves learning, which is still a form of action and needs to be recorded. Krathwohl (1998) refers to the act of recording ones thinking (carrying on a conversation with oneself) during research. Figure 5-2 illustrates how the reflective journal entries were used to support this inquiry project.

To help me organize my thoughts about each session, I categorized entries in my reflective journal into several groups: Logistics, Teaching Technique, Communication, and Other. Analysis of the reflective journal entries indicated where communication and recruitment strategies to potential students might have reduced the number of students

who attended the sessions. Once students are actively working in the asynchronous course, they are able to move about freely through the course. However, the reflective journal highlighted the fact that in order to attend the synchronous sessions they had to obtain two signed forms (student assent and parent consent) prior to continuing which may have reduced the number of students willing to go this extra step. Examples of entries concerning communication and logistics:

Session 1 reflective journal entry- communication: Emailed class 10 days prior to event explaining the sessions. I asked them to message me with any questions and return the signed form if they wanted the URL to attend. I received several inquiries and several had issues with returning the form.

Session 1 reflective journal entry- logistics: Only two kids? Wow, wonder why? There were several questions about the required permission forms...I wonder if that prohibited students from attending?

The reflective journal was also used to document teaching methods and resulted in continuous improvements to instructional delivery, one of the goals of action research (McNiffe & Whitehead, 2009). The “Teaching Technique” section of the reflective journal included an evaluation of my own teaching strategies and became a planning tool for future live lessons. Improvements for future lessons were based on realizations from the previous session for example:

Session 1 reflective journal entry- teaching technique. Students stumbled when I included a road in my example. I realized after I had already started that I should NOT have included a road in my example. Improvement for next time? Concentrate on a shape and allow them to figure out what else to include. I also

realized after viewing the recording that I did not stop enough and check for understanding. Next time I will give students an opportunity to speak up with questions.

Session 2 reflective journal entry- teaching technique. This session was much smoother in a lot of ways, but specifically in regard to my instructional methods. I had them draw a box first and then the guidelines to the vanishing point. MUCH better!

It was in the reflective journal that Student A was identified as a “socializer” and I considered strategies for dealing with her.

Session 3 reflective journal entry- teaching technique. Need to disable all privileges until the moderator arrives! Student A has gotten out of control. She obviously just wants friends to hang out with.

Session 4 reflective journal entry- other. I remembered to suggest that Student A join the student ambassador’s club. I also emailed her information.

Session 5 reflective journal entry- other. I had to mute Student A and eventually remove her from the session. She was just too distracting and had technical difficulties.

The field notes taken after reviewing each recorded synchronous session were evaluated and my thoughts on them were entered into the reflective journal. These entries were used to analyze and improve my instructional delivery methods prior to the next session. This reflective journal was later used in the analysis of the field notes and helped me develop codes and themes.

Rubric Scores

Florida Virtual School instructors are required to use rubric scores (Appendix D) as a standardized assessment of mastery. Rubric scores (graded by Mrs. C) were obtained from all art students active in the course during this study that had submitted

the assessment for Lesson 2.05. Since content mastery is required, some students had two scores as resubmissions are accepted and even encouraged. Comparisons were used to understand if there were quantitative effects on student achievement as a result of the synchronous sessions as described below (Meyers & Rust, 2003). Of the twelve students who attended the synchronous sessions three (25%) were withdrawn by the teacher prior to submitting the assessment for Lesson 2.05, therefore no rubric scores exist. Rubric scores were obtained and analyzed for nine, or 75%, of the twelve participants. These rubric scores were used as quantitative data to study the effects of synchronous learning to students in an asynchronous online art course.

Control group. Rubric score data was obtained for all students currently enrolled at FLVS during the period studied in asynchronous M/J Orientation to Art 2D. At the time of data collection, sixty-two students had completed Lesson 2.05. Of those students, five submitted the assignments twice. Their mean final scores equaled 13.60 (out of a possible 20 points) with a standard deviation of 7.48 (Table 5-5).

Independent group. In order to determine if the synchronous sessions had an effect on participating students, quantitative data was collected and analyzed. Of the twelve that participated in the synchronous sessions, seven students submitted Lesson 2.05 after the synchronous session. Of those students, three had previously submitted the assignment. Two of the twelve students submitted the lesson, but did not resubmit after the synchronous session. Three students were withdrawn from the course prior to submitting the assessment for Lesson 2.05. The seven students that submitted after the session produced a mean final score of 19.43 out of 20 possible points, with a standard deviation of 0.79 (Table 5-6).

Difference in means. Students who attended the synchronous sessions had a mean final score that was 5.83 points higher than the students who did not attend. I conducted a t-test to analyze whether the difference was significant. Even with a small sample size, results indicated the difference to be statistically significant with a p value of 0.04 (Figure 5-7).

Next, I compared the resubmission scores of both groups since participants had a mean score 5.67 points higher than the non-participants' resubmission scores. Small sample sizes of n=3 (participants) and n=5 (non-participants) may have accounted for the large confidence interval range of -6.34 to 17.67 and with a p value of 0.29, the difference is not considered statistically significant (Figure 5-8).

Finally, I compared the first submission mean scores to determine if there were differences prior to the synchronous sessions among both the participants and non-participants. With a sample size of four (n=4), the participants' first attempt scores were 5.93 points higher than the non-participants (n=57). I conducted a t test to determine whether the difference was significant. Results indicate that with a p value of 0.12, the mean difference is not considered significant (Table 5-9) indicating that there was no statistical difference between first attempt scores between participants and non-participants.

Themes

Students attended five of the eight scheduled synchronous art sessions. Each of the five populated sessions was recorded, using the recording tool within Blackboard Collaborate, which enabled the accurate creation of field notes. Entries in a reflective journal helped make practical decisions about the next move throughout the study. Without commenting on why the action might have occurred or how, field notes

documented ‘what’ was happening by scripting dialog and recording questions and answers (Dana & Yendol-Silva, 2003). Next the field notes were coded according to Glesne (2006), which involved a process of creating an organizational framework by putting like-minded pieces of data together into clumps and then breaking down the major code into many sub-codes, which were then grouped into code sheets (Figure 5-3). A reflective journal was used to help group the codes into themes to aid in the development of a theory pertaining to the effects of synchronous lessons to students in an online asynchronous art course. The process of reading and rereading the field notes and reflective journal entries led me to devise the following list of codes and respective definitions necessary to turn them into analyzable data.

Code Descriptions:

- TEACHING OPPORTUNITY. Expanding on prepared lesson to disseminate information in a way that makes sense to students based on a specific student interaction.
- REPEAT REQUESTS. Request for repetition of information.
- DIFFERENTIATION. Applying alternate instructional delivery methods to clarify student understanding.
- CHECKING FOR UNDERSTANDING. Evidence of teacher checking for understanding by asking questions, surveying students, and monitoring student participation in the chat.
- ASKING CLARIFYING QUESTIONS. Students and or teacher asking clarifying questions related to the lesson.
- RELATIONSHIP BUILDING. Evidence of teacher building relationships with students.
- STUDENT APPROVAL OF LIVE LESSON. Student feedback regarding live lessons.
- TEACHING MISTAKE. Evidence of teacher mistakes during live lesson.
- MIXED-UP MOMENTS. Confusion with technological tools during lesson.

- STUDENT-TO-TEACHER ENGAGEMENT. Students interacted with the teacher through both verbal and written exchanges, which were content related.
- STUDENT LEARNING. Student grasping a new concept.
- STUDENT-TO-STUDENT INTERACTION. Written and or verbal interactions between students regarding content.
- STUDENT QUESTIONS. Instances of students asking questions.
- STUDENT EXCITEMENT. Evidence of student excitement during lesson.
- STUDENT ENCOURAGEMENT. Students demonstrating acts of encouragement to other students.
- STUDENT ENGAGEMENT WITH TECHNOLOGY. Student engagement with technology without being directed to do so.
- SOCIALIZING. Student-to-student interactions regarding non-content topics.
- STUDENT OFF TASK. Students displaying off task behavior.

To organize all field note data, I prepared a sheet for each code and recorded each individual action transcribed from the synchronous session onto the related code sheet. To provide further explanation I prepare a code chart (Appendix G), which illustrates each code, its definition, and one quoted example taken from the code sheets.

Dana and Yendol-Silva (2003) recommend beginning the “sense making” step by reading the code sheets and asking questions such as: “What do I notice?” and “How might different pieces of my data fit together?” By using my reflective journal entries and referring to the code sheets, I answered those questions. This process helped me identify two themes: Theme 1: Synchronous Online Art Lesson as a Teaching Tool (Table 5-3) and Theme 2: Synchronous Online Art Lessons as a Tool for Student Engagement (Table 5-4). Half of the codes related to the synchronous sessions being used as a teaching tool (teacher centered) and the other half related to synchronous

sessions being used as a tool for student engagement (student centered). Patterns and connections were explored within and between the two themes, which resulted in Theme 3: Synchronous Sessions Support Interaction for Various Groups of Students. This exploration resulted in the development of my resulting theory related to the effects of synchronous learning on students in an asynchronous online Art course.

Theme 1: Synchronous Online Art Lesson as a Teaching Tool

Upon studying the code sheets and various charts related to the codes, I noticed several phenomena took place in each attended session. First, opportunities to teach the lesson (Code: Teaching Opportunity) in a way different than that of the asynchronous course occurred in each session on an average of 6.8 times. Instruction changed depending on the students' questions. My field notes recorded an instance from Session 2 in which I drew a horizontal line to demonstrate a horizon line and immediately asked for a sign that the students were ready to move on. The students in attendance gave me a signal that they were ready. My instruction was directed by whether or not the students were ready. My field notes disclosed an instance in Session 3 where, after I redrew my initial paper and pencil drawing, I redrew it on the whiteboard to give the students another chance to and see understand the concepts.

The codes: Differentiation, Checking for Understanding, and Asking Clarifying Questions, occurred in each of the five synchronous sessions. In Session 5, after asking if they understood (Code: Checking for Understanding), the students indicated that they did by using emoticons. Because of a chat conversation with Student J, Student I asked a question about the meaning of perspective and position of the artist point of view in the example I had just drawn. I asked him to pretend he was standing in

front of his house. Following this differentiated instruction (Code: Differentiation), he understood.

After watching me draw the horizon line and vanishing point, Student J asked, "What if you drew it, like, almost right under it, the bottom corners would overlap?" From this clarifying question (Code: Asking Clarifying Questions), I gathered that Student J wanted to see a shape right under the vanishing point. As I drew a shape under the vanishing point, I finally understood what she was trying to ask. She wanted to know how the shape's appearance changed with changes to the artist's point of view. With further drawing, she agreed that I answered her clarifying question.

As I drew the horizon line and vanishing point again for Student L and Student K, I had Student J and Student I assist in the process of creating one point perspective. Because of Student J's question, I was able to introduce an overlapping situation in perspective by drawing it again. I also had Student J and Student I help in the redrawing process as I checked for Student L and Student Ks' understanding.

The field notes taken from the fifth synchronous session included instances of data coded as Differentiation, Checking for Understanding, and Asking clarifying questions as students interacted with the teacher and other students regarding content. Table 5-3 illustrates occurrences of these three codes in each of the other four synchronous sessions.

The codes Repeat Requests, Teaching Mistakes and Mix-up Moments all occurred in the first session only. Coding revealed that there were three instructional mistakes and four mix-up moments from Session 1, which resulted in students asking

me to repeat the instruction. For example, as I continued with a complicated way of teaching this lesson:

Student B: wait!!!!, I messed up

Student A: *[doodling on the whiteboard]*

Me: *[Once I established a 3D building]*

Student B: can u repeat how to do that plz?

Me: *[demonstrated again for the camera]*

The code Student Approval of Live Lesson occurred in each of the attended synchronous sessions. For example during Session 5, Student G commented that this session was easier than reading the assignment on line. After Session 6, Student F described his experience as fun and felt confident he would do well. A parent sent me an email after Session 8 to let me know that her son thoroughly enjoyed the lesson and was proud of his work.

Theme 2: Synchronous Online Art Lessons as a Tool for Student Engagement

Coding the field notes from the sessions and reviewing entries in the reflective journal revealed many distinct descriptors of the theme of student engagement. Each session showed evidence of the code Learning. For example in Session 2, student C stated that she had learned enough to go ahead and submit her assignment to her regular teacher. Table 5-11 illustrates the occurrence of the code Student Learning in the four other synchronous sessions.

Students answering questions, asking questions, and making comments about the experience demonstrated the code Student-to-Teacher Engagement during all five populated sessions (Table 5-4). Furthermore, students interacted with other students regarding lesson content coded as Student-to-Student in each of the sessions. This

came in the form of assisting, discussing, and complimenting. For example, because of a chat conversation with Student J, Student I asked a question about the perspective and position of the viewer during Session 5.

An instance coded as Student Engagement with Technology occurred in every session. (To me engagement meant more than the simple act of logging into the sessions.) Students conversed in the chat area, used whiteboard tools, and four students made use of the microphone and video functions (Table 5-12). Each session also showed evidence of the code Student Excitement, which was directly related to the technology of the live lesson. For example, in several sessions the students selected the ‘clapping hands’ icon in Blackboard Collaborate to profess his/her excitement. In another session a student exclaimed, “I like this video!” in the chat area (Table 5-12).

The codes Student Off Task and Socializing occurred in three of the five synchronous sessions. Even though the sessions presented the same lesson, Student A attended all five sessions. She was the only student coded as Off Task and Socializing. Although she never resubmitted the assignment, making it impossible to determine a change effect on the rubric score, the live lessons did provide her with an opportunity to socialize with other students and to interact with technology and the teacher (Table 5-12).

Theme 3: Synchronous Sessions Support Interaction for Various Groups of Students

Analyzing both qualitative and quantitative data revealed four distinct groups of students who participated in the synchronous sessions (Figure 5-4). In order to assess what the data suggested about these unique groups, I looked for phenomena collected from all three tools: field notes, reflective journal entries, and rubric scores. The

following groups were devised based on quantitative data related to when or if the students submitted or resubmitted the assignment for Lesson 2.05. Once formed, I also looked for any shared qualitative connections within the groups.

Three non-completers (Students E, H, and K). According to the teacher's contact log, two of these students (Student E and K) did not submit any of the required number of assignments to remain in the course and were withdrawn. The other student (Student H), was still active in the course, but had not submitted the assignment. Mrs. C. suggested that the student had technical issues and was probably not able to scan the work.

All three attended the synchronous session and one attended it twice (Student E). She was one of the few public school students taking this course during the school day. At the beginning of Session 3 she communicated that she was anxious for the session to start but then remained quiet throughout the session and had no other interactions. Later that same day she joined the next offered synchronous session- Session 4. She acknowledged that she accessed the session while in the computer lab and wasn't able to talk on their microphone or follow along. The teacher withdrew her within the twenty-eight day grace period due to inadequate progress in the course.

Student H joined the forth session while it was in progress. Although she was ten minutes late to the session, I reviewed the instructions that were given prior to her arrival since it gave the other students an opportunity to reinforce the process. Student H acknowledged that she had caught up and she understood the directions when she correctly answered a question related to the drawing. She inquired about whether or

not the sessions would be held again in the future. At the time of data collection and analysis, Student H had not submitted the assessment for Lesson 2.05.

Student K joined Session five approximately 10 minutes late. Since I didn't see that Student K was involved in asking questions or using any of the interactive Blackboard Collaborate tools, I commented in an entry in my reflective journal that she was the only one to appear disengaged. She did complete the session by making suggestions for completing the assigned drawing. Previously Mrs. C temporarily suspended Student K from accessing the course since she had not scheduled one of her required calls. Since she could not reach Mrs. C, Student K's parent contacted me about how to contact her teacher. She also acknowledged they were using the synchronous lesson as a way to stay active in the course and avoid being dropped. Mrs. C processed a 'withdraw no grade,' or WNG for this student a week later.

Analysis of qualitative data from the sample subgroup consisting of Students E, H, and K, suggested that synchronous lessons were a way for these students to stay active in the course as they were able to interact with the teacher in real-time.

Four post session submitters (Students B, D, G, and I). These students were grouped together because their first submission of the Lesson 2.05 artifact occurred after attending a synchronous session. All four students were engaged with the technology (code: Engagement with Technology) and with the content. Student B asked clarifying questions (code: Asking Clarifying Questions), requested to see the process repeated (code: Repeat Requests), and showed excitement (code: Student Excitement) by exclaiming, "I did it!" as she completed the last step in the drawing process. Student B participated in the first session when I taught the process

incorrectly. Even though we still ended up with a one-point perspective drawing, we went about it in a difficult way. Student B submitted her work that same day and received teacher feedback which indicated that her buildings appeared a little awkward. I knew that she had followed my mixed-up (code: Mixed Up Moments) instructions since she drew in the same manner that I had drawn. Since she was engaged, asked questions, and submitted an assignment using the steps I had shown in the synchronous session, it appeared to me that Student B attended for the purpose of getting help with the lesson.

Student G, the second grade public school student, demonstrated similar coded behaviors as Student B. He was engaged with the technology (code: Engagement with Technology) by using the interactive tools in Blackboard Collaborate and even using his web cam to show me the drawing he completed during the session, demonstrating pride in his work. He mentioned that he was a visual learner and demonstrated the code Student Approval of Live Lesson since he stated that participating in the fourth synchronous session “was much easier than reading the lesson!” Student G had obviously attempted the asynchronous lesson, but found the synchronous session to help him complete the assignment. Student G earned 19 out of 20 possible points.

Student D interacted with other students and demonstrated the code Relationship Building while in the second synchronous session. She seemed to prefer the live nature of the session by typing, “This is so cool,” when I showed my home studio with the web camera. Student D communicated that she had learned enough to go ahead and submit this assignment, which indicated to me that she was not ready to submit prior to

my synchronous session. She earned full credit on the drawing she submitted after attending the lesson.

Student I attended the last synchronous session offered to the class. While he was engaged with lesson content, he demonstrated the code Engagement with Technology as he used the drawing tools on the whiteboard to assist a few other students who needed help. It was Student I who helped push the lesson even further by inquiring about alternate drawing scenarios, thus enhancing the lesson. Student I earned full credit on his artwork by scoring a 20/20 rubric score.

Two participants who did not resubmit (Student A and C). Analysis of qualitative data helped me determine a possible cause for Students A and C to attend the synchronous session other than to learn. According to the rubric score, Student A, the “socializer,” demonstrated mastery of Lesson 2.05 by earned a rubric score 16 out of 20 possible prior to attending the synchronous session. Students have the option of resubmitting until they earn their preferred grade. Data provides evidence that Student A may have attended the synchronous sessions to socialize and interact with others. She attended every session, talked on the microphone, typed in the chat area, drew on the whiteboard, and used the web camera as a way to participate. Over the course of the month she did not inquire about the assignment or attempt to resubmit her work. During Session 6, Mrs. C., had to remind her that she was behind pace in art and needed to spend time catching up. It appeared to me that Student A was lonely and through synchronous sessions found a way to interact with others.

Student C had already earned a rubric score of 20/20 on the assessment for Lesson 2.05 prior to attending the synchronous session. Regardless of mastering the

content, she was engaged with the content and technology (code: Engagement with Technology). She asked questions, answered questions, and even said that participating in the process live was easier for her since she is a visual learner (codes: Asking Clarifying Questions, Student to Teacher Engagement, and Student Approval of Live Lesson). Based on her previous 20/20 rubric score and attentive behavior in class, I concluded that her curiosity may have brought her to this session.

Three participants who resubmitted (Students F, J, and L). Analysis of this group of students provided evidence of outcomes that synchronous instruction can promote among students in asynchronous M/J Orientation to Art 2D. Students F, J, and L did not master the assignment for Lesson 2.05 during the first submission, with mean scores of 6.67. Their teacher, Mrs. C, gave them an invitation to the synchronous session as a way to get help and resubmit the assignment. After resubmitting the assessment for Lesson 2.05, their mean scores rose 13 points to 19.67, with each mastering the concept of space.

From the start of the third synchronous session that Student F attended, he asked questions (code: Asking Clarifying Questions), interacted with the technology (code: Engagement with Technology) and content, and showed excitement (code: Student Excitement) and approval of the session (code: Student Approval of Live Lesson). He professed that he was sure to earn a 20/20 for his resubmission and followed up with a thank you email.

Student J attended the last synchronous session offered, which I considered the most successful due to the extent in which the students asked questions and interacted with the content (codes: Asking Clarifying Questions, Student Engagement with

Technology, and Student to Teacher Engagement). Student J was the student who helped stretch the lesson by posing ‘what if’ questions about the placement of objects. I labeled her ‘advanced’ in my reflective journal entry not knowing that she had previously failed at her first attempt of this assignment.

Student L who attended Session 5 was able to see the demonstration twice because of participating in the same session as Student J. I showed the class how to create one-point perspective once and then Students I and J showed the class the process as a way to demonstrate mastery. Student L showed her enthusiasm by typing, “That is so cool!” in the chat box (code: Student Excitement).

Physical school status. Analysis of the physical school statuses related to the students who participated in the voluntary synchronous sessions showed that eight (66%) out of the twelve participants were homeschooled students. These findings are consistent with those of the students who submitted the lesson, but did not attend the session. Of the students who did not participate, 70% were registered as homeschool within their districts.

The other four students who participated in the synchronous sessions attended a traditional brick and mortar school. Out of those four, one took the M/J Orientation to Art 2D during the school day. The three students who participated but did not submit Lesson 2.05 were all traditional school students. Only one traditional school student submitted Lesson 2.05. Three out of the four traditional school students attended the sessions did not complete the course successfully.

Summary of Analysis

An action research study was conducted to determine the effects a supplemental synchronous session would elicit to art students enrolled in a middle school

asynchronous online course. Data was collected from field notes and reflective journal entries to document qualitative phenomenon that occurred during the study period. Those phenomena were coded and analyzed.

Three themes were developed as effects of a synchronous lesson for students in an asynchronous course. Synchronous lessons provide a teaching tool to asynchronous students (Theme 1), they also provide an opportunity for teachers to engage students in learning (Theme 2), and they support interaction for various groups of students (Theme 3). Although initially the themes were developed in order to organize phenomena, I brought them back together when I developed the theory that synchronous learning through live lessons provides an opportunity for student engagement by supporting interaction for various groups of students. This student engagement appeared to have several qualitative effects; increased student achievement and the opportunity to interact with others.

Qualitative data revealed that students who submitted or resubmitted the assignment for Lesson 2.05 after attending a synchronous session were engaged with technology, showed excitement during the lesson, asked clarifying questions, and communicated that learning this way was easier than the asynchronous way. Finally, synchronous sessions seemed to offer students the opportunity for interaction with each other, which, in some cases was a prime motivator for attendance.

Validity of Results

Krathwohl (1998), states that data triangulation involves the use of two or more sources to establish accuracy. The use of multiple methods of data collection can provide an enhanced level of confidence in results of data obtained; method triangulation was performed in this study. Both qualitative methods (field notes and

reflective journal entries) and quantitative methods (rubric scores) were used. Effects were identified through the analysis of the field notes and those effects were then triangulated with the effects shown through the increased mean rubric scores.

Examples concerning three students are provided below showing triangulation of data collection methods.

During the third live lesson, Student F expressed his satisfaction with the live lesson and the confidence that he would do well on the assignment, which were both noted in the field notes. This qualitative data was coded as Student Excitement and Live Lesson Approval, which were both effects noted from the live lesson. Quantitative data shows an improved rubric score on his assignment. His score increased from a 5/20 prior to the live lesson to a 19/20-post lesson. Student F also sent an unprompted email describing his satisfaction with the lesson and his score. He wrote, “Ms. Polly, I got a 19/20 on my drawing! I got 19 and not 20 because my lines in the back were not completely straight. But I'll take a 19 over a 5 any day! Thanks sooooooooooooooo much for the class! I enjoyed it very much!” Confidence in the qualitative results was supported by the quantitative results obtained from the rubric scores.

During the second live lesson, another participant, Student D, attempted the asynchronous lesson, but did not understand the content. She attended a live session and interacted with other students, she asked clarifying questions, and was engaged with the technology. All were noted as evidence of codes and themes. Confidence in the assumption that this qualitative data showed that she was engaged in learning was gained when her rubric score showed mastery by earning a 20/20. Unprompted, she

noted in the assignment comments section, “this lesson was easier after the live lesson.”

Triangulation also helped validate other effects, which was the case with Student A, the “socializer.” From qualitative data I concluded that Student A, who’s behavior was coded as Off Task and Socializing, attended the sessions primarily for student and teacher interaction. Although engaged in student and teacher interaction, this gave confidence to my assumption that she was not engaged in learning after reviewing the quantitative data. She never resubmitted the lesson assignment after the synchronous session and was satisfied with the grade she earned before attending.

Summary of Data Analysis

The synchronous sessions had an effect on students enrolled in the asynchronous online art course M/J Orientation to Art 2D. From the students that participated in my synchronous sessions, I discerned four distinct groups: three non-completers, four post-session submitters, two non-resubmitters, and three post-session resubmitters. Quantitative data did not provide evidence of a significant impact on student performance. However I did find that students who attended my synchronous sessions did have higher mean rubric scores than those who did not. Analyzing qualitative data however, did lead me to theorize that synchronous learning through live lessons provides an opportunity for increased student engagement. This engagement led to two outcomes; increased student performance shown by students who submitted or resubmitted the assignment after the synchronous session and opportunities for students to interact with others. Further elaboration of my theory and resulting implications are discussed in Chapter 6.

Table 5-1. Synchronous session details.

Session	1	2	3	4	5	6	7	8
Attendees	2	0	0	0	3	3	4	5
Day	Wed	Tues	Wed	Sun	Mon	Tues	Tues	Fri
Time	11 AM	8 PM	9 AM	4 PM	8 PM	10 AM	5 PM	10 AM
Duration	49	NA	NA	NA	45	47	43	49

Table 5-2. Sample demographics.

Student	Grade	School	Level*	Status
Student A	6	Homeschool	Beginner	Complete
Student B	7	Homeschool	Intermediate	Active
Student C	7	Homeschool	Beginner	Active
Student D	6	Homeschool	Beginner	Complete
Student E	8	Public	Beginner	Withdraw No Grade
Student F	6	Homeschool	Beginner	Complete
Student G	2	Public	Beginner	Active
Student H	8	Public	Beginner	Active
Student I	6	Homeschool	Intermediate	Complete
Student J	6	Homeschool	Intermediate	Complete
Student K	7	Homeschool	Beginner	Withdraw Fail
Student L	8	Homeschool	Beginner	Complete

* Beginner= first experience at FLVS, Intermediate= prior experience with FLVS

Table 5-3. Synchronous online art lesson as a teaching tool.

Codes:	Occurrences Live Lesson 1	Occurrences Live Lesson 2	Occurrences Live Lesson 3	Occurrences Live Lesson 4	Occurrences Live Lesson 5
Teaching Opportunity	7	6	6	7	8
Repeat Requests	3	-	-	-	-
Differentiation	1	3	1	1	1
Checking for Understanding	7	4	2	1	1
Asking Clarifying Questions	1	1	2	1	2
Relationship Building	3	3	1	2	1
Student Approval of Live Lesson	2	2	1	2	1
Teaching Mistakes	3	-	-	-	-
Mix-up Moments	4	-	-	-	-

Table 5-4. Synchronous online art lesson as a tool for student engagement.

Codes:	Occurrences Live Lesson 1	Occurrences Live Lesson 2	Occurrences Live Lesson 3	Occurrences Live Lesson 4	Occurrences Live Lesson 5
Student-to-Teacher Engagement	4	2	2	1	4
Learning	3	1	1	1	1
Student-to-Student Engagement	2	4	1	1	2
Student Questions	3	-	-	-	1
Student Excitement	4	2	2	1	2
Student Encouragement	1	1	1	3	1
Engagement w/ Technology	4	3	1	3	3
Socializing	2	1	1	-	-
Student Off Task	1	-	2	1	-

Table 5-5. Control group descriptive statistics.

	N	Mean	SD
First Submission	57	13.32	7.54
Resubmission	5	14.00	8.22
Final	62	13.60	7.48

Table 5-6. Independent group descriptive statistics.

	N	Mean	SD
First Submission	4	19.25	0.96
Resubmission	3	19.67	0.58
Final	7	19.43	0.79

Table 5-7. Final score comparison.

	N	Mean	SD
Participant	7	19.43	0.79
Non Participant	62	13.60	7.48

Unpaired t test results- $t(67)=2.05$, $p=.04$

Table 5-8. Resubmission score comparison.

	N	Mean	SD
Participant	3	19.67	0.58
Non Participant	5	14.00	8.22

Unpaired t test results- $t(6)=1.15$, $p=.29$

Table 5-9. First submission comparison.

	N	Mean	SD
Participant	4	19.25	13.32
Non Participant	57	13.32	7.54

Unpaired t test results- $t(59)=1.44$, $p=.15$

Table 5-10. More examples of code occurrences from field notes.

Code	Session 1	Session 2	Session 3	Session 4
Differentiation	p. 4, 35-36	p. 4, 1-2	p. 2, 30-31	p. 3, 21-22
Checking for Understanding	p. 3, 1-3	p. 2, 12-13	p. 3, 6-9	p. 2, 17-18
Asking Clarifying Questions	p. 4, 13-14	p. 2, 20-22	p. 3, 8-9	p. 2, 32-33

Table 5-11. More examples of learning occurrences from field notes.

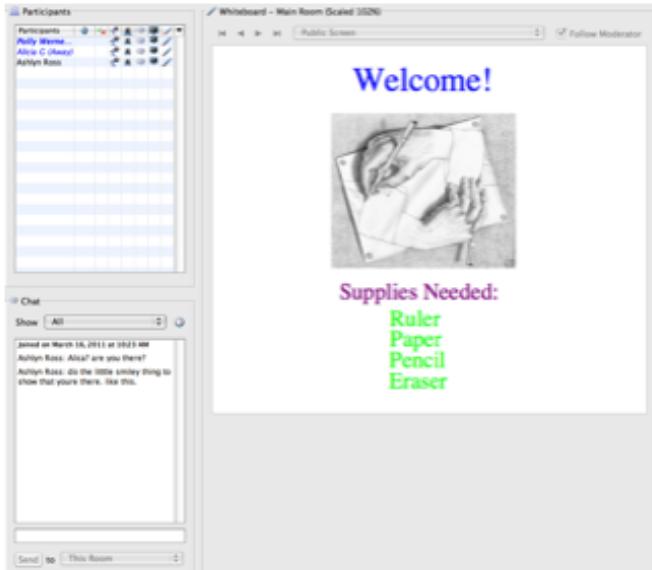
Code	Session 1	Session 3	Session 4	Session 5
Learning	p. 2, 14-15	p. 3, 31-32	p. 2, 33	p. 2, 34-35

Table 5-12. More examples of code occurrences from field notes.

Code	Session 1	Session 2	Session 3	Session 4	Session 5
Student to Teacher Engagement	p. 4, 29-31	p. 3, 6-10	p. 2, 29-30	p. 2, 26-39	p. 2, 32-34
Engagement with Technology	p. 4, 36-38	p. 3, 15-17	p. 3, 12-13	p. 3, 2	p. 1, 13-14
Student Excitement	p. 2, 17-19	p. 4, 4-5	p. 2, 6-7	p. 2, 25	p. 2, 13-14

Researcher Name: Polly Werner Haldeman
Protocol #: 1
Observation Site:
Elluminate Session

Study Name: Synchronous Art Lesson
Observation Date: March 16, 2011: 11 AM
Protocol Completion Date: April 26, 2010

1 [Focus statement] This is my first set of field observation notes.
2 I hope to make my observation notes detailed, complete and
3 descriptive. I will pay close attention to the interaction from
4 and between students attending the session. Since I am a
5 participant/observer during this study, I will refer to myself as
6 "The Observer" and will indicate my own behavior in *italics*.
7 [General Setting] Observations were recorded via Elluminate
8 (web conferencing tool) during the live art lesson. Elluminate
9 consists of a main room for the participants with a white board,
10 chat area, and a live video from my home studio. Students
11 come to Elluminate at a variety of ability levels of which I am
12 unaware of since I am not their teacher of record.
13 I joined the Live Art Lesson session at 10:23 AM after setting up
14 and leaving again. When I returned, [REDACTED] had decorated the
15 whiteboard screen with doodles and notes to other participant,
16 [REDACTED]. She wrote things like "Hi! So glad you're here [REDACTED]"
17 [REDACTED], "do the little smiley thing to show that you're there.
18 like this." She chatted that she was boooooorrrrrreadded
19 being by herself. After 3 minutes, I cleared the whiteboard with
20 the exception of what I already had (see below).
21
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1

Figure 5-1. Field notes



Figure 5-2. Reflective journal.

1. As I pointed to things on the screen, A [REDACTED] copied me.
2. She then placed a big sun on my horizontal line. I
3. [REDACTED] appeared to be having trouble as she kept clipping the clapping hands, check mark, and typing in the chat box.
4. [REDACTED] kept raising her virtual hand, which made the bell keep dinging.
5. [REDACTED] is asking to 'cut the bread' on the whiteboard. I keep telling her to wait.
6. Thank Goodness Mrs. C [REDACTED] is 'dealing' with [REDACTED] who still cannot hear. [REDACTED] suggests to her that she log off and complete some other art assignments. She reminds her of her goal of completing module 3 this week. As I tried to remove [REDACTED], I removed myself instead!

Figure 5-3. Code sheets.

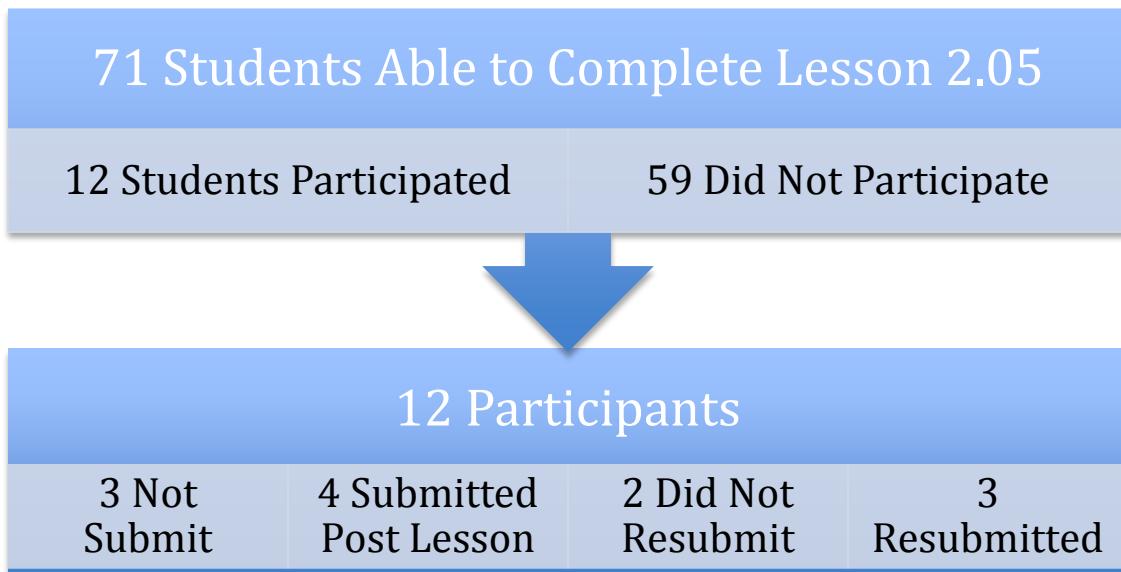


Figure 5-4. Sample subgroups.

CHAPTER 6 CONCLUSIONS

This chapter begins with a summary of my action research project followed by a discussion of each resulting theme. Recommendations and implications are presented for other teachers, virtual schools, and for future directions in online learning. Limitations and next steps are also provided in this chapter.

Context

Florida Virtual School (FLVS) is one of the oldest and largest online public schools in the United States. In 2010 FLVS reported 97,000 students in sixth through twelfth grades took middle and high school courses in an asynchronous format (FLVS Enrollment Summary, 2010). The basic structure of FLVS courses involve self-paced instruction provided completely online. Through phone calls, FLVS teachers speak with students at least once a month and are available daily for phone help. My own online teaching experience in the course, M/J Orientation to Art 2D, was the basis for this study. Dana and Yendol-Silva (2003) recommend starting inquiry with a ‘wondering’ based on a concern in the classroom. I discussed with other teachers of M/J Orientation to Art 2D the concern that students may be missing opportunities to ask clarifying questions about the art making process while they were creating their own art. Due to this concern I started my inquiry concerning the possible effects live art lessons, or synchronous learning opportunities, might have for the students in our asynchronous art course.

Cavanaugh, Barbour, and Clark (2009) report, that due to a limited amount of empirical research, there is a need to establish best practices for online teaching strategies, particularly in the area of synchronous delivery. Recent research has

demonstrated that by combining online and face-to-face elements, learning outcomes increase for students (Means, 2010). Yet, experts agree that more exploration is needed to evaluate the effectiveness of online learning modalities (Patrick & Powell, 2009; Cavanaugh, Barbour, & Clark, 2009). By studying the effects of synchronous instruction on students in an asynchronous online course, this study will contribute to the need. The research question, 'What effects do synchronous learning opportunities have on students in an asynchronous online art course' was formulated based on my initial wondering and my perceived need for synchronous instruction to supplement the asynchronous lesson.

Research Project Overview

The study was designed as a classroom inquiry project using Dana and Yendol-Silva's 2003 book, "The Reflective Educator's Guide to Classroom Research" as a guide. Action research was chosen as the research method because it allowed me to take a participatory role in finding knowledge in local realities, which in my case was my virtual classroom (Herr & Anderson, 2005). Educators performing thoughtful inquiries can help expound practice beyond their classroom (Meyers & Rust, 2003). Identifying knowledge in those 'local realities' and the likelihood to bring about change based on the new knowledge made action research the appropriate choice for my research project (Dana & Yendol-Silva, 2003).

Dana and Yendol-Silva (2003) state that meaningful teacher inquiry should become part of the teacher's daily classroom work. To help determine the effects that synchronous learning opportunities have on students in an asynchronous course, I collected data while providing a synchronous lesson to students in an asynchronous online art course. I provided supplemental synchronous online art sessions and

students who participated had the opportunity to ask questions, draw the lesson to demonstrate that they mastered the concepts, and communicate with me and other students. Each of the five sessions that I provided used the same material from the FLVS course, M/J Orientation to Art 2D. Repeating the same content, my sessions were supplemental synchronous opportunities covering Lesson 2.05, All About Space. Twelve students, or 9% of the course voluntarily attended online sessions, with two of the twelve attending more than once.

Dana and Yendol-Silva (2003) suggest considering how to capture life in the classroom in a way that can be translated into data. The synchronous sessions were recorded and reviewed for that purpose. Field notes (individual notes for each action that occurred during recorded synchronous sessions), reflective journal (entries on my thoughts and feelings concerning field notes), and rubric scores (based on required student submissions graded by their teacher), were used to determine if synchronous learning opportunities had an effect on students in Florida Virtual School's M/J Orientation to Art 2D course. The field notes and reflective journal entries were for the collection of qualitative data. The rubric scores (Figure 6-1) were used as quantitative data to provide a mixed methods approach that could triangulate findings.

Using the methods described by Dana and Yendol-Silva (2003), I extracted three themes from the data collected throughout the synchronous sessions; synchronous online art lessons as a teaching tool, synchronous online art lessons as a tool for student engagement, and synchronous online art sessions that support interactions to serve varying types of students.

Theme 1: Synchronous Online Art Lesson as a Teaching Tool

As described in Chapter 5, the synchronous online art lessons included in this study became a teaching tool that enabled distinct opportunities for differentiating instruction, checking for understanding, and asking clarifying questions. The students who participated in the synchronous sessions and submitted or resubmitted Lesson 2.05 had higher mean rubric scores than those who did not participate. My research findings expand on the results reported by Means, Toyama, Murphy, Bakia and Jones (2010) when they asserted that in a blended learning approach, which combines online and face-to-face elements, students had more learning opportunities than purely face-to-face and purely online. One possible explanation is that synchronous distance education uses elements of traditional classroom instruction and therefore encompasses a different set of teaching and learning skills than that of a purely asynchronous format (Bernard, Abrami, Wade, Borokhovski, & Lou, 2004).

Chickering and Ehrmann (1996) state seven principles that new technologies (regardless of delivery method) in distance learning should provide. They claimed that using these guiding principles would help determine the purpose and rationale for implementing the new tool. The seven principles are: encourage contact between students and faculty, develop reciprocity and cooperation among students, use active learning techniques, give prompt feedback, emphasize time on task, communicate high expectations, and respect diverse talents and ways of learning. I used the Blackboard Collaborate platform to provide synchronous sessions within the asynchronous online art course. All seven principles were present as shown in Table 6-1. I found that the Blackboard Collaborate platform allowed for instructional flexibility and the ability to be responsive to students according to their instructional needs. McBrien, Jones, and

Cheng found similar results in a 2009 study of online synchronous instruction and student engagement.

Prior to this study, I was convinced that online education's greatest benefit was how it expanded access, allowing exposure to art for more students. Due to my experiences as a classroom researcher, my ideas concerning teaching art online have changed focus. While focusing on providing an additional method of teaching to students, I discovered that I had improved my instructional delivery. Cavanaugh, Barbour, and Clark (2009) recently reported that due to a limited amount of empirical research, there is a need to establish best practices for online teaching strategies particularly in the area of synchronous delivery. While implementing such lessons are just one component of teaching online, planning and facilitating them effectively offers the possibility of higher engagement and improved student performance appropriate for varying types of students. While conducting this research project I also developed a list of synchronous session strategies (shown below) to use while planning and teaching live online art lessons for students in an asynchronous course.

- Evaluate lessons in which students appear to stumble
- Practice using the video conferencing tool and camera prior to first live lesson
- Advertise live lesson option to both students and parents through email, phone calls, and in assignment feedback
- Employ student moderators to help
- Have a "Plan B" for the inevitable 'socializer' in attendance (classroom management)
- Record the session and keep notes to reflect upon the sessions and improve instructional delivery
- Evaluate student achievement changes

DiPietro, Ferdig, Black, and Preston (2008) state that exploring the perceptions of successful virtual school teachers from varying content areas is necessary to develop an understanding of best practices which may affect preparation of teachers and may impact developing policies. Review of their findings (derived from observations and interviews conducted with Michigan Virtual online instructors, specifically from the “Pedagogical Strategies: Engaging Students with Content” section of the study) mirrors the findings from this study. This adds validity to not only my first developed theme: synchronous online art lesson as a teaching tool, but to that of DiPietro et al. (2008), in that this medium enables distinct opportunities for differentiating instruction, checking for understanding, and asking clarifying questions. Table 6-2 details a comparison of both studies and best practices related to pedagogical strategies as they relate to engaging students with content.

Research-based investigations in K-12 virtual schooling into the teaching and learning process are still lacking (Cavanaugh, Gillan, Kromrey, Hess, & Blomeyer, 2004). In 2006, researcher, Kerry Rice stated that, “Enhanced computer-mediated communication tools cannot substitute for well-designed instruction and opportunities to engage in purposeful, interactive learning activities (p. 440).” With that said, this study and its results contribute data for determining a list of best practices for “well-designed instruction” as it relates to effective teaching online, specifically synchronous lessons. As DiPietro et al. (2006) state, the development of standards related to preparing in-service and pre-service teachers for the unique skills required to teach online originate from understanding best practices in K-12 virtual schools. Within my own classroom context, the results of this study reinforced my desire to offer more synchronous

sessions covering a variety of course lessons. By continuing these sessions and adding to my list of synchronous strategies, I will contribute to the success of synchronous sessions for myself and for others and perhaps add to a list of best practices needed in online teaching.

Although all teachers within Florida Virtual School use technology each workday, many do not possess the comfort level needed to successfully launch live sessions with their students. This was shown when teachers requested to join my sessions to learn the logistics to produce their own. Working with the FLVS professional learning department will be essential in helping prepare other teachers to implement this instructional model within their asynchronous courses. My study also indicates that FLVS should require and train all teachers to use a web conferencing tool. Using the web conferencing tool, Blackboard Collaborate, for the synchronous sessions provided the flexibility needed for differentiated instruction, opportunities for asking clarifying questions, and allowed for checking for understanding. Although teachers will need further training and a clearly defined list of best practices should be further developed, my research showed that the synchronous sessions are a valid tool for teaching and many students expressed excitement.

Theme 2: Synchronous Online Art Sessions as a Tool for Student Engagement

Implementing supplemental synchronous lessons into Florida Virtual School's M/J Orientation to Art 2D course and studying the effects they had on students helped me theorize that synchronous learning through live sessions provides an opportunity for increased student engagement. Schlechty (2007) defines student engagement when the task, activity or work that students are assigned or encouraged to undertake has meaning or value to the student. Striving for student engagement leads to outcomes

associated with learning at high levels and the students' emphasis on optimum performance (Schlechty, 2007). Several students demonstrated characteristics indicating their desire for a high or higher score. During this study, I found that student engagement led to increased student performance shown by students who submitted or resubmitted the assignment after the synchronous session and led to opportunities for students to interact with others. Although it cannot be quantified (due to small sample sizes) that student engagement from synchronous lessons increased student achievement, I did find that participating students had higher mean rubric scores than those who did not participate. Analyzing qualitative data lead me to theorize that synchronous learning through interactive live lessons provide an opportunity for student engagement.

Swan (2002) states that online pedagogy, as it relates to instructor activity and interaction in online environments, deserves further investigation. My study supports this claim and warrants the need for further research and the development of synchronous lessons to be embedded in asynchronous online art courses. This was indicated since the research participants demonstrated engagement while using Blackboard Collaborate even though they joined the sessions for a variety of reasons. Sheldon (2009) agrees that synchronous sessions may be helpful for students, providing an opportunity for real-time dialog throughout the art making process, with immediate answers to questions. Swan (2002) also found that employing immediacy behaviors to reduce the psychological distance increases the desirable level of social presence. I found that providing real-time dialog and employing immediacy behaviors throughout the art making process enabled me to maintain instructional momentum and

maintain engagement throughout the lesson. One indication of this was the students' curiosity and enjoyment at viewing my art studio. Supported by the findings of Laird and Kuh (2004) who concluded that students who used technology were more engaged and therefore earned higher academic achievement than those who did not, I believe synchronous sessions are a way to improve online art instruction. All participants who submitted or resubmitted Lesson 2.05 had higher mean scores than those who did not.

Beldarrain (2007) states that asynchronous courses have limited opportunities for modeling, but that through synchronous means, peers can share knowledge. The Blackboard Collaborate sessions enabled learning communities to begin, which would allow the construction of knowledge to take place within a group of peers. Wenger (1998) defines this group of peers that construct knowledge as a "community of practice". This sense of community led to activities such as participants solving problems, finding information, and reusing assets (Table 6-3).

Findings support my recommendation that art teachers of asynchronous online courses should use web conferencing tools to provide synchronous lessons for students. I found that my synchronous sessions provided interaction, which builds a sense of community and an opportunity for engagement. Quantitative results did not prove that the increase in student performance was due to synchronous sessions; further research with a larger sample size would be necessary. Qualitative results did provide evidence that synchronous sessions can be a tool for engaging students.

Theme 3: Synchronous Sessions Support Interaction for Various Groups of Students

Seventy-five percent ($n=9$) of the participants in this study were enrolled as homeschooled students. Results indicate that both homeschool and public school

students attended the synchronous sessions for a variety of reasons. From the students that participated in my synchronous sessions, I discerned four distinct groups: three non-completers, four post-session submitters, two non-resubmitters, and three post-session resubmitters. Several students used the session as a way to stay active in the course, while other students attended for the purpose of getting extra help on the lesson. Curiosity and socialization appeared to motivate two other students to attend. Since participation was voluntary, these findings can only reflect on the types of students that chose to attend the sessions.

Bernard et al. (2004) found that synchronized classrooms can produce outcomes equivalent to traditional classrooms, but it doesn't always happen. Cavanaugh, Gillan, Kromrey, Hess, and Blomeyer (2004) hypothesize that since online learning is just as effective as traditional learning, we can assume that factors creating success in the traditional classroom can be implemented virtually. Much like that of a traditional compulsory classroom, which is made up of all types of students, implementing synchronous sessions does serve various types of students. Varying instructional strategies including delivery methods may be necessary in the online classroom also. A new set of instructional skills specifically for online teachers implementing synchronous sessions may be required to help meet the needs of all students in an asynchronous online course (Bernard et al., 2004).

Beldarrain (2007) stated emerging technologies are changing online learning because they evoke real-life collaboration opportunities and foster a sense of connectedness between members of a group. This connectedness is what the students at Florida Virtual School say their courses have been lacking. FLVS conducts an

annual survey of their students preformed by an outside source. According to these results, students want more interactions. In my study all participants displayed traits of interaction with content, teacher, and/or other students. It also indicates that adding synchronous session provides much needed interaction that is reported to be lacking at Florida Virtual School.

According to Romanowski (2001), socialization is the main criticism of homeschooling. He contends that the lack of peer interaction in the classroom is "detrimental to a home school student's education" (p. 82). For two homeschoolers in my study, interaction seemed to be all they wanted to get from the session, since both attended the sessions although they had already earned an A and a B for Lesson 2.05 and didn't try to improve their scores after the sessions. Participating in synchronous sessions, even though small in size, provides opportunities to interact with peers and the instructor, which is important for meaningful positive socialization (Lebeda, 2007).

According to Simmons (1994), interactions of homeschool students through discussions, idea exchange, and working with peers helps them determine how to face problems, how they perceive the world and influences their goals. According to Swan (2002), interactions among students within online courses deserve further investigation. Barbour (2007) states that interaction is key to creating a learning community for virtual school students. There is little research on learning communities at the K-12 level (Cavanaugh, Barbour, & Clark, 2009). My research will add to this debate. Although I found that students who attended my synchronous sessions did have higher mean rubric scores than those who did not, quantitative data did not provide evidence of a significant impact on student performance. Analyzing qualitative data however, did lead

me to conclude that synchronous learning through live sessions supports interaction among various types of students, as they interacted with the content, the instructor, and their peers creating their own learning communities. Although more research is needed, my results validate the use of synchronous sessions for varying types of FLVS students, while providing the homeschooler with the much-needed interaction that is already available in traditional public schools.

Impact on Professional Practice

The live lessons within the online course prompted me to think about my true passion for online art education. I believe promoting the use of online learning is a modality that provides art access to more students. I began to wonder what would happen if I offered online synchronous project-based art sessions to students as an extra curricular course rather than for credit. I wrote a proposal to the Executive Team of Florida Virtual School and was approved to pilot a few art classes. I taught two sessions at no cost and recently completed a four-week art series for a fee (Figure 6-1). The positive response from students, parents, and FLVS executives has resulted in the live sessions being developed as a new line of business for FLVS. Because of my own learning with this action research project, I was able to successfully implement a different, but related method for teaching synchronous sessions online that may be translated to other teachers and courses in the future.

In the 2011-2012 school year Florida Virtual School launched over 165 Virtual Learning Labs (VLLs) throughout the state of Florida. These labs are considered blended learning environments since they are housed in a physical school and populated with students taking a virtual school course during the school day. The FLVS Leadership Team made a decision to require Virtual Learning Lab teachers to hold

online office hours while students are in the lab. While the students are engaged in learning, the online office hours provide immediate access for extra help from the teacher. My research provided evidence that live lessons can promote student engagement and provides a sense of community through student interaction. Given the emphasis placed by FLVS admin on online office hours and increased synchronous interaction, it is plausible that my results could be mirrored. As such FLVS should explore a systematic evaluation of synchronous lessons embedded in asynchronous online art courses. During my study, participation in the synchronous sessions resulted in higher student performance scores for those that submitted assignments after the session. My research indicated that by offering synchronous lessons for their students, VLL teachers and all FLVS teachers would provide an interactive sense of community and could increase student engagement.

McNiff and Whitehead (2009) stated that one of the most important claims that a researcher can make is that they have influenced learning for improving practice. FLVS art teacher colleagues not only felt the value of the live lessons first hand, they learned the logistics for hosting their own sessions. Within a few weeks of attending my live sessions both art teachers identified other lessons as well as the one that I featured in my study that could benefit their students. Before I finished the study, the regular art teacher started advertising and is currently hosting live sessions (Figure 6-2).

I presented my research on supplemental synchronous art lessons during a poster session at the International Society for Technology in Education (ISTE) Conference in June of 2011. Participants lined up to watch how I broadcasted and interacted with student volunteers, and many asked process related questions. Some

brick and mortar educators inquired about implementing this method as a supplement for their face-to-face students, since I had ‘proven’ results. I have contact information from nearly one hundred visitors who wanted to know more about including this type of instruction into their own teaching environments.

The desire to learn more about research concerning methods for teaching art online is also apparent by National Art Education Association. For the past five years, I have been denied the opportunity to present information about teaching art online. This year I made a proposal to present my research on teaching art online through synchronous sessions, and was accepted (Figure 6-4). I believe that performing research and finding results have qualified my ideas enough to have a larger conversation with professionals within the fields of Technology and Art Education.

Dana and Yendol-Silva (2003) state that “those best positioned to make a difference in education” are the teachers themselves (p. 141). This study has proven that my inquiry related to my own felt need has prompted local and national conversations that may result in educational change. By continually contributing to new practices and even new theory, I contribute to sustainability (McNiff & Whitehead, 2006). By understanding this, I believe that Florida Virtual School teachers should engage in inquiry as a way to grow professionally and promote change within the school. One way to do this is to provide and record synchronous sessions and use these to analyze instructional delivery.

Next Steps

The results of this study indicate several areas that would benefit from future research. By expanding this study to teachers of other subject areas, we could learn more about the effects of synchronous sessions on students in other types of FLVS

courses. Lai and Ball reported in 2004 that exploration into distance learning with art education is in the initial stage. Recent research has demonstrated that by combining online and face-to-face elements, learning outcomes increase for students but more exploration is needed to evaluate those outcomes (Patrick & Powell, 2009; Cavanaugh, Barbour, & Clark, 2009; Means et al., 2010). Through the completion of this research study, I sought to evaluate possible effects including changes in learning outcomes.

My results from qualitative data warrant the continuation of synchronous sessions. Due to small sample size, quantitative results were not proven statistically significant. After including synchronous sessions into asynchronous courses, a summative evaluation could be conducted to provide different points of view and expose specific effects related to supplemental synchronous sessions for students in an asynchronous course (Krathwohl, 1998). To determine the reasons that students attend the synchronous sessions, both quantitative and qualitative (including student interviews) should be collected and analyzed. This may identify factors other than synchronous tutoring opportunities that contribute to the outcome of those students. Understanding the students' purpose for attending and other quantitative data resulting from the learning outcomes of these students might influence future direction of implementing synchronous instruction into online classrooms. It may also impact the instructional design of online courses and could add to the focus of professional learning in the future by providing instructors with an additional teaching modality.

One theme present throughout the literature was that historically art teachers are hesitant toward integrating technology into the classroom (Bryant, 2010; Delacruz, 2009; Roland, 2010). Roland (2010) and Delacruz (2009) suggest that art teachers

tend to teach in the manner in which they were taught, implying a continuum of teaching methods and strategies rather than implementing new strategies and tools such as technology. Simply teaching art online is not necessarily implementing new technological tools. While the majority of research is related to technology as a tool for creating art, there are several studies, which illuminate the potential that technology has as a tool for accessing art and stress the importance for educational reform within the art classroom (Gregory, 1997; Gura, 2008). Lu (2010) reports that the best way to learn about technology is not to read and hear about it but to actually use and experience it. Implementing synchronous online art sessions into asynchronous courses is a practical way for art teachers to learn.

Change for teachers and their instructional methods is more impactful when it is comes from within (McNiff & Whitehead, 2006). Through this action research study, I sought to improve my own practice by analyzing, reflecting, and acting on insights. The process of thinking about issues, planning a project to address those issues, reading relevant literature, and making changes in practice based on this new knowledge has influenced much more than my thinking about improving my instructional practice. For me, this process has become a catalyst for learning and for reform within my classroom and beyond (Dana & Yendol-Silva, 2003). I believe that other teachers providing synchronous sessions could use the recordings to engage in self-inquiry and possibly improve their instructional methods.

Limitations

The purpose of action research is to improve one's own practice by studying and reflecting on their findings (Dana & Yendol-Silva, 2003). The impetus for this study was a need that I, the teacher researcher, felt based on my own experiences. When

designing the inquiry, I started to essentially ‘fill’ the need by developing a method that I felt would help improve student learning of art online. Upon reflection, bias lay in the fact that I wanted the live lesson concept to have some positive effect on the students. I assumed that live tutoring had to improve student-learning outcomes because these sessions would build on the instruction the students traditionally receive in the course. I didn’t consider that any tutoring might have similar results. I also believed that analyzing qualitative data would show that students would be more successful if given the opportunity to receive synchronous lessons.

I have grown as a professional practitioner as a result of conducting this study. First, I learned the value of systematic research as a way to determine the validity of what ‘feels’ to be right. Although I thought the live lessons would have a positive effect on students, I wasn’t sure why. As described in Chapter 5, analysis of qualitative data provided insight as to what happened and why. For me the live lesson concept has evolved from “a fun way for students to learn” into a theory that synchronous lessons are teaching tools which engage various types of students leading to an interactive community of learners.

Throughout the study, while collecting and analyzing quantitative data, my thinking evolved further when results didn’t prove that the synchronous sessions improved student performance. I believe inconclusive results of quantitative data were due to small sample sizes. Although necessary for the University of Florida’s Internal Review Board, I believe the parental consent and student assent forms decreased the voluntary student participation. Internal evaluations without those requirements could provide a

larger sample for consideration. A larger sample size may provide further assurance of the value of providing synchronous sessions and their effects on student performance.

Conclusion

My research examining the effects of synchronous instruction to students in an asynchronous art course revealed several outcomes. Mean rubric scores were higher for participating students than for nonparticipating students; however further research with larger sample sizes should be conducted to prove quantitative effects. Analysis of qualitative data provided evidence that my synchronous sessions became a tool for student engagement resulting in student learning and interaction.

This research project has influenced other teachers to implement their own synchronous sessions and many more have made inquiries concerning how to host their own suggesting acknowledgment of the importance for educational reform within the art classroom (Gregory, 1997; Gura, 2008). Additionally, FLVS is developing a new line of business to provide extra curricular synchronous sessions to students. Perhaps the most substantive results of this study are the national conversations developing from my research. From thorough analysis and thoughtful reflection, I was able to improve my own instructional delivery, which is the goal of action research (Dana & Yendol-Silva, 2003).

Research tells us that teaching art online is a practical and accessible method for students to make art projects and can be intimate, interpersonal, and interactive (Akins, Check, & Riley, 2004; Gura, 2008). Research found that blended learning approaches had a larger advantage than purely face-to-face and purely online (Means, Toyama, Murphy, Bakia & Jones, 2010). Technology has the potential to improve not only the status of art programs, but it can also improve the format and success of art outcomes

(Sheldon, 2009). The results of this action research study showed that including synchronous instruction in an asynchronous art course provided an opportunity for student engagement by facilitating an interactive community of learners and improved my own instructional delivery. My research project has qualified me to present my findings on a national level representing both the field of Educational Technology and Art Education. Finally my study has contributed to the currently limited research available concerning synchronous learning in an asynchronous environment.

Muir (2001) reported several disadvantages of teaching and learning online. Disadvantages stated were low levels of synergy, subjects like art were difficult to teach, and real-life simulations were limited. In ten years, advancements have been made in technology and in our understanding of how to teach and learn in online environments which has nearly eliminated Muir's stated disadvantages. Change is inevitable and advances can eliminate or reduce known problems, but with new knowledge also come more disadvantages and problems to solve. Blended learning is one of the newer online educational modalities and has obtained a clear definition by the North American Council for Online Learning (NACOL) which is, "combines online delivery of educational content with the best features of classroom interaction and live instruction to personalize learning, allow thoughtful reflection, and differentiate instruction from student to student across a diverse group of learners (p. 4)." My research has added knowledge to the database of blended learning, identified some solutions for known problems, and highlighted specific areas that need further investigation. My research has also shown that implementing synchronous sessions into an online asynchronous art course can personalize learning, provide differentiated instruction to various types of students, and

equip the teacher with resources to evaluate their own instructional improvement. I began this project hoping to find a new way to provide art to more students but found that I have developed as a professional practitioner and could possibly influence the fields of Art and Technology.

Table 6-1. Evidence of seven principles of technology

Principle	Exemplar	Session
Encourage contact between students and faculty	I asked for signals from them when they completed the first step by adding a shape below the horizon line.	3
Develop reciprocity and cooperation among students	They were virtually interacting with each other when one said, "I'm ready" and the next said, "Me too" and then it kept going with "Me 3, Me 4, Me 5" etc...	5
Use active learning techniques	I had Student J and Student I assist me through the process as I taught it again for Student L and Student K to check for understanding. Because of Student J's question, I was able to introduce an overlapping situation in perspective.	5
Give prompt feedback	Student B: "does it have to be horizontal or can it be diagonal or something?" Student A: "I think so." I asked her if I had helped or if I needed to draw it again. Student B indicated that she didn't understand the horizontal line part.	1
Emphasize time on task	The teacher reminded her student of her goal of completing module 3 this week.	5
Communicate high expectations	I introduced the process by showing a horizon line and adding a vanishing point. Along the way, I described the 'neatness' category on the grading rubric.	3
Respect diverse talents and ways of learning	I qualified Student F's attempt by stating that this was a challenging project.	3

Table 6-2. Examples of best practices according to DiPietro et al.

Practice	Exemplar	Session
VS teacher builds in course components to reflect the interests of students enrolled in the course	Students A & B ‘played’ together by collectively drawing on the whiteboard at the beginning of the session.	1
VS teacher is flexible in their use of pedagogical strategies to accommodate varying learning styles	While reviewing the process from a different perspective on the whiteboard, I drew it in a different way.	3
VS teacher establishes strong relationships with mentors	N/A- VS does not employ the use of mentors	
VS teacher uses multiple strategies to form relationships that support rich interactions with students	The students used the chat tool, whiteboard, and video camera within the Blackboard Collaborate session.	3
VS teacher motivates students by clearly organizing and structuring content	“I followed along with each step on the whiteboard to give students two chances to see each step.”	2
VS teacher embeds deadlines with the content structure to motivate students in self-paced course to complete course requirements	At the end of the session, I encouraged them both to resubmit by stating: “In order to finish this project, you need to add more to finish the scene. This will help you earn more credit.”	1
VS teacher provides students with multiple opportunities to engage content in ways to suit varying learning styles.	The next step was to figure out how big the object was to be. I related it to slicing a loaf of bread.	2

Table 6-3. Community of practice activities

Activity	Exemplar	Session
Problem Solving	I asked Student G to draw 2 parallel lines on the whiteboard. He did without any problems.	4
Finding Information	I checked for understanding of the process by asking them, "what's next?" Student G answered, "connect them to the vanishing point." Student G asked if we should erase the horizon line, which showed interest. Student G shared a video image of his work.	4
Reusing Assets	Student A pointed out to Student E that she could virtually raise her hand by using the Blackboard Collaborate tool.	3

Table 6-4. Examples of interactions during study

Interactions	Exemplar	Session
Instructor	As I worked out Student J's question, I actually "saw" and it made sense to me. I thought I understood when I read it, but as I worked it out, I knew what she meant. She agreed that I answered her question.	5
Content	Student J wanted to see a shape right under the dot. She showed higher-level thinking as she contemplated different outcomes. They indicated by using emoticons that they understood the concepts.	5
Students	Student G commented that this session was easier than reading the assignment on line. They chatted back and forth while we finished up the lesson.	4

A

B

Student Comments	
I hope it shows up.	
Remove comments	
Attached File(s)	Art_2.pdf Object ID: s22689
Show all files this user has uploaded (9 file(s))	
Grading Requested	No
Instructor comments	
<p>I don't see a file attached. Watch the video in the lesson. Play it through 1 time completely, then stop it as you draw. Remember, the lines of the buildings are either horizontal or vertical (like the sides of the paper). if they are not the ones going to the vanishing point.then, look back at the link in the lesson to the Sanford</p>	
<input checked="" type="checkbox"/> Spell Check <input type="checkbox"/> Add Audio <input type="checkbox"/> Add Video	
<input type="checkbox"/> Remove comments <input type="checkbox"/> E-Mail comments/grade to student once posted <input type="checkbox"/> E-Mail comments/grade to supervisor address once posted <input type="checkbox"/> E-Mail comments/grade to myself once posted	
Upload feedback	
Rubric Completed all steps of assignment	9 / 10
Rubric Artwork is neatly submitted	5 / 5
Rubric Art shows creativity	4 / 5
Current Rubric Grade: 18 / 20	
Manual Grade	/ 20
# Submissions	2 / Unlimited

Figure 6-1. Rubric example. A) Student artwork. B) Teacher completed rubric.

FLVS SUMMER ART SERIES

Explore the basics of Art in this 4 week FLVS Summer Art Series. Whether you are interested in taking one class, or all 4, this series allows middle school students to get their creative juices flowing before the start of school. Offered as an extracurricular, the FLVS Summer Art Series runs from July 28 through August 18. Each Thursday from 11am-12pm Eastern Standard Time, students will have the opportunity to learn the basics of Picasso Inspired Portraits, the art of Realism and more in a live online session.

Each class in the series is \$10. Click on the buttons to download the registration form and send to us. You will then receive an email confirmation within 24 hours and a link to access each class.



WEEK 1 (July 28) - Zentangles

Who knew doodling could look so good! Come learn the Art of Zentangles through a fun, step-by-step session using just black and white.



WEEK 2 (Aug 4) -Picasso Inspired Portraits

Explore techniques used by famous Artists and use them in your own work. There are a lot of "secrets" revealed in this session and this project will be one to frame!

Figure 6-2. FLVS extra curricular synchronous art sessions

Course Announcement

Don't Miss out! You can come to FOUR that's 4 !!!! different Live art lessons this week! Each day at 4 pm we will begin class so

Tuesday @ 4:00 Live Art Session Lesson 3.02-Printmaking Click here to login Tues. @ 3:45	Wednesday @ 4:00 Live Art Session Lesson 4.02-Movement Click here to login Wed. @ 3:45	Thursday @ 4:00 Live Art Session Lesson 3.05 and 2.07a Cartoon People Click here to login Thurs. @ 3:45	Friday @ 4:00 Live Art Session Lesson 2.05-Space Click here to login Fri. @ 3:45
--	--	--	--

*** Attend a LIVE ART SESSION this week, to improve your skills and submit more assignments. They are FUN, COOL and LIVE! Check your calendar for the dates and times.

Figure 6-3. Teachers advertising their own synchronous sessions



Dear Polly:

Thank you for responding to the 2012 NAEA National Convention Call for Presentations. It is my pleasure to inform you that your presentation, **Teaching Art Online is Virtually Possible**, was accepted for inclusion in the program for the 2012 NAEA National Convention in New York City, New York, March 1-4. The specific time and date of your presentation will be sent to you in late fall following completion of our scheduling process.

This session is scheduled as a Poster Session.

NAEA received a record number of presentations this year and, once again, relied upon a scoring rubric for the peer review and assessment process. The peer review process requires careful thought and consideration in terms of Content, Clarity of Purpose, Suitability/Relevance, Quality, and overall program balance. The caliber of this year's presentations was excellent—making the acceptance of just over 1,000 sessions (approximately 48%) highly competitive. The average score for accepted presentations was 13 (out of a possible 15).

In the coming months, a preliminary convention schedule will be available on NAEA's website. Convention registration will open soon. Please note that all presenters and co-presenters must be registered attendees of the convention. To take advantage of discounted earlybird registration fees, and to ensure your session appears in our on-site convention program, please be sure to register by November 1. Visit NAEA online at www.arteducators.org for convention updates, schedules, and additional registration information.

The AV equipment indicated on your presentation form will be ordered for you. Please note that additional AV equipment is available at your own expense and may be ordered by contacting Dyventive, 2556 Metropolitan Drive, Trevose, PA 19053; 888-736-8972, x120; fax 215-354-9230.

Thank you for your leadership and professional contribution to advancing research and practice in visual arts education! I look forward to seeing you in New York, March 1-4, 2012.

Kathy Duse
Convention and Programs Manager
National Art Education Association
1806 Robert Fulton Drive, Ste. 300
Reston, VA 20191
703-889-1281

Figure 6-4. NAEA conference proposal acceptance letter.

APPENDIX A

M/J ORIENTATION TO ART 2D

Figure A-1. Screenshot of online art course.

Activity	State Standards
Lesson:1.03 Title: Why use a sketchbook?	• Uses refinement and control in handling tools and materials in a safe and responsible manner.
Lesson:1.04 Title: What is 2D Art?	• Understands and distinguishes multiple purposes for creating works of art.
Lesson:1.05 Title: Can I be an Artist?	• Understands the skills artists use in various careers and how they can be developed in art school or college or through internships.
Lesson:1.06 Title: Module 1 Vocabulary	• Knows how the qualities and characteristics of art media, techniques, and processes can be used to enhance communication of experiences and ideas.

Figure A-2. Screenshot of course standards in module 1.

Module 2 Task List	Assignment Type	Time to Complete	Points Possible
<input type="checkbox"/> 2.00 Introduction and Task List	N/A	20 minutes	N/A
<input type="checkbox"/> 2.01 All About Lines	View Comic Assignment 2.01 Gesture Drawing Assignment	60 minutes 90 minutes	* 20
<input type="checkbox"/> 2.02 All About Shapes	2.02a Object Checklist 2.02b Blind Contour Drawing s Assignment 2.02c Discussion	30 minutes 60 minutes 30 minutes	20 20 20
<input type="checkbox"/> 2.03 All About Value	2.03a Values Checklist View Comic Assignment 2.03b Value Forms Drawing Assignment	30 minutes 30 minutes 30 minutes	20 * 20
<input type="checkbox"/> 2.04 All About Texture	View Comic Assignment 2.04 Collage Drawing Assignment	60 minutes 90 minutes	* 20
<input type="checkbox"/> 2.05 All About Space	View Comic Assignment 2.05 One Point Perspective Drawing Assignment	60 minutes 90 minutes	* 20
<input type="checkbox"/> 2.06 All About Color	2.06a Color Wheel Assignment 2.06b View Comic Assignment 2.06c Color Design Drawing Assignment	60 minutes 60 minutes 90 minutes	20 20 20
<input type="checkbox"/> 2.07 Comic Self-Portrait	2.07a Comic Self-Portrait Drawing Assignment 2.07b Oral Exam	90 minutes 30 minutes	50 50
<input type="checkbox"/> 2.08 Module 2 Vocabulary	2.08 Module 2 Vocabulary	60 minutes	20
<input type="checkbox"/> 2.09 Module 2 Survey	2.09 Module 2 Survey	20 minutes	10

* One View Comic Assignment will be submitted in 2.06.

Figure A-3. Screenshot of course task list example from module 2.

Course Announcement

***WELCOME TO ART! Miles Y, Rhiannon P, Jonah F. and Imani L. ***

Glogster EDU
poster yourself

ART 2D

Week	Lessons
1	1.00, 1.01, 1.02, 1.03
2	1.04, 1.05
3	1.06, 1.07, 2.00

WORD of the WEEK

Analogous:
similar or the same-alike
(adjective)

Figure A-4. Screenshot of course homepage.

APPENDIX B LESSON 2.05

The screenshot shows the Art2D course interface. On the left, a vertical sidebar lists navigation links: Lessons, Course Information, Assessments, Gradebook, Email, Discussion Groups, ChatRoom, Whiteboard, My Folders, Students, Technical Support, Announcements, Other Courses, Logoff, and Web 2.0 Tools. At the top right, there are three tabs: Explore (green), Imagine (yellow), and Create (orange). Below them, a large title box contains the text "2.05 All About Space". To the left of the title is a small thumbnail image of a painting. To the right, under the heading "Artist Objectives", is a bulleted list: "• Learn the characteristics of space in design" and "• Use space in the creation of a design". Further down, sections titled "What is Space?" and "How do artists use space?" are present, along with a paragraph about Edward Hopper and links to his art. At the bottom, the Florida Virtual School logo is visible, along with copyright information and social media links.

Lessons

Course Information

Assessments

Gradebook

Email

Discussion Groups

ChatRoom

Whiteboard

My Folders

Students

Technical Support

Announcements

Other Courses

Logoff

Web 2.0 Tools

Art2D

Explore **Imagine** **Create**

2.05 All About Space

© 2004 clipart.com

Artist Objectives

- Learn the characteristics of space in design
- Use space in the creation of a design

What is Space?

Space is the interval, or measurable distance, between points or images.

How do artists use space?

Edward Hopper is an artist who uses **space** to show a physical space, as well as an emotional space. His work shows a distance, as well as loneliness, in the theme. Hopper uses the element of space to communicate the purpose of his work.

View Edward Hopper's art by visiting [Here](#).

In this lesson you will learn how to use space in your drawings.

Florida Virtual School Unless otherwise noted,
© 2004 FLVS

[Home](#)

Figure B-1. Lesson 2.05 objectives.

Lessons
Course Information
Assessments
Gradebook
Email
Discussion Groups
ChatRoom
Whiteboard
My Folders
Students
Technical Support
Announcements
Other Courses
Logoff
Web 2.0 Tools



Art2D



Explore



Imagine



Create

2.05 All About Space

Artists who successfully use space make the image appear real to the viewer.

How is the space used that is around the subject?

Does it show where the subject is?

Do you feel like you are looking in a window of the subject?

This is space. The places around the main subject are just as important as the subject itself. Look at the following examples to prove this point. Rollover each image to see an explanation of the positive and negative space.

Positive Space:



© 2008 FLVS

Negative Space



© 2008 FLVS

The positive space, or the main image, leaves a space behind that should be considered when creating art. The space left behind is the negative space. This space can be an area to give more information about the image.

Artists create space in many different ways. Here are a few:

- **Perspective** - the way things appear as they go off into space. Artists use perspective to make a 2D surface **look** like it has depth, which is 3D (height, width, and depth).
- **Size** - the way objects appear to change in size depending on where they are in the picture. You should draw objects in the background smaller than those in the foreground.
- **Value Change** - objects in the foreground appear darker in value than those in the background.

Figure B-2. Lesson 2.05 content.

Lessons
Course Information
Assessments
Gradebook
Email
Discussion Groups
ChatRoom
Whiteboard
My Folders
Students
Technical Support
Announcements
Other Courses
Logoff
Web 2.0 Tools

 Art2D

 Explore  Imagine  Create

2.05 All About Space

In this lesson, you learned space:

- makes 2D art appear to have depth.
- makes our art look realistic.

This lesson will be complete once you have done **all** of the following:

- Read all information in the **Explore** and **Imagine** sections of this assignment.
- Cut out a comic strip, pasted it into your sketchbook, and written an explanation about the use of space in the drawing.
- Created a one-point perspective drawing.



© 2004 clipart.com

If you can check off each of these items, you should now submit **2.05 One Point Perspective** assessment.

This assignment is worth **20 points**.

Please visit the Course Information area for instructions on how to submit this assignment. If you need additional help, send an email to your instructor with the subject: "Help with Submitting Assignments."



Unless otherwise noted,
© 2004 FLVS



Figure B-3. Lesson 2.05 assessment.

APPENDIX C IRB APPROVAL



PO Box 1120
Gainesville, FL 32611-2250
352-392-0433 (Phone)
352-392-9234 (Fax)
irb2@ufl.edu

January 11, 2011

TO: Polly Werner Haideman
11090 NW 73rd Court
Chiefland, FL 32626

FROM: Ira S. Fischler, PhD; Chair *[Signature]*
University of Florida
Institutional Review Board 02

SUBJECT: Approval of Protocol #2011-U-0005

TITLE: Effects of Synchronous Instruction on Student Performance in Florida Virtual School's "Orientation to Art 2D"

SPONSOR: None

I am pleased to advise you that the University of Florida Institutional Review Board has recommended approval of this protocol. Based on its review, the UFIRB determined that this research presents no more than minimal risk to participants. Your protocol was approved as an expedited study under category 7: *Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies*. Given your protocol, it is essential that you obtain signed documentation of informed consent from the parent or legal guardian of each participant. When it is feasible, you should obtain signatures from both parents. Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for the research.

It is essential that the parents/guardians of your minor participants sign a copy of your approved informed consent that bears the IRB approval stamp and expiration date.

If you wish to make any changes to this protocol, *including the need to increase the number of participants authorized*, you must disclose your plans before you implement them so that the Board can assess their impact on your protocol. In addition, you must report to the Board any unexpected complications that affect your participants.

The approval of this study is valid through January 11, 2012. If you have not completed the study by this date, please telephone our office (392-0433), and we will discuss the renewal process with you. It is important that you keep your Department Chair informed about the status of this research protocol.

ISF:dl

APPENDIX D
PARENT CONSENT AND STUDENT ASSENT

Effects of Synchronous Instruction on Student Performance in Florida Virtual School's "Orientation to Art 2D"

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study: The purpose of this study is to examine the effects of live lessons (synchronous instruction) on student performance in Florida Virtual School's "Orientation to Art 2D."

What your child will be asked to do in the study: Students will have the option of attending live art lessons via Blackboard Collaborate. During these supplemental live lessons, students will have the opportunity to ask questions and receive immediate answers, 'see' project demonstrations, and interact with the instructor.

Time required: The live lessons range from 30 minutes to an hour. Students can choose to attend as many or as few as they chose.

Risks and Benefits: There are no foreseen risks to this study. Potential benefits for participating in this study may include: the opportunity to work with a certified art instructor to obtain greater understanding of the material, reduced frustration with 'challenging' assignments due to the ability to 'see' the process while being able to ask questions, and spending less excess time in the course.

Confidentiality: Your child's identity will be kept confidential to the extent provided by law. Your child's information will be assigned a code number. The list connecting your child's name to this number will be kept in a locked file in my faculty supervisor's office. When the study is completed and the data have been analyzed, the list will be destroyed. Your child's name will not be used in any report.

Voluntary participation: Your consent to participate in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study: You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study: Polly Haldeman, Graduate Student, Florida Virtual School, Suite 200, 2145 Metrocenter Blvd, Orlando, FL 32825, (407) 513-3587, ext. 4341 or Dr. Erik Black, Assistant Professor, University of Florida, P.O. Box 117048, Gainesville, FL 32611-7058, (352) 334-1357.

Whom to contact about your child's rights as a research participant in the study: IRB02 Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; phone 392-0433.

Agreement: I have read the study described above. I give consent for my child to participate in the study and I have received a copy of this description.

Participant's Parent/Guardian: _____ Date: _____

Principal Investigator: _____ Date: _____

Effects of Synchronous Instruction on Student Performance in Florida Virtual School's "Orientation to Art 2D"

Please read this document carefully before you decide to participate in this study.

Purpose of the research study: The purpose of this study is to examine the effects of live lessons (synchronous instruction) on student performance in Florida Virtual School's, "Orientation to Art 2D."

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Confidentiality: Your identity will be kept confidential to the extent provided by law. Your information will be assigned a code number. The list connecting your name to this number will be kept in a locked file in my faculty supervisor's office. When the study is completed and the data have been analyzed, the list will be destroyed. Your name will not be used in any report.

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Agreement: I have read the procedure described above. I voluntarily agree to participate in the study and I have received a copy of this description.

Participant: _____ Date: _____

Principal Investigator: _____ Date: _____

APPENDIX E

LESSON 2.05 SCORING RUBRIC

Lessons Florida VirtualSchool DEMO Any time, any place, any path, any pace

Course Information

Assessments

User: Demo Account
In Course: Master M/J Orientation to Art 2-D v5 (master1714)
Instructor: [Master 1714](#)

Email

Discussion Groups Title 2.05 One Point Perspective
Details Attach the file containing your one point perspective drawing.

ChatRoom Due Date

Whiteboard Completed all steps of assignment 0 / 10

My Folders Artwork is neatly submitted 0 / 5

Students Art shows creativity 0 / 5

Technical Support Rubric Grade 0 / 20

Points Possible 20

Announcements Course Contribution 20

Other Courses Submissions Allowed 3

Logoff Submission Number 0

Web 2.0 Tools Optional File Upload

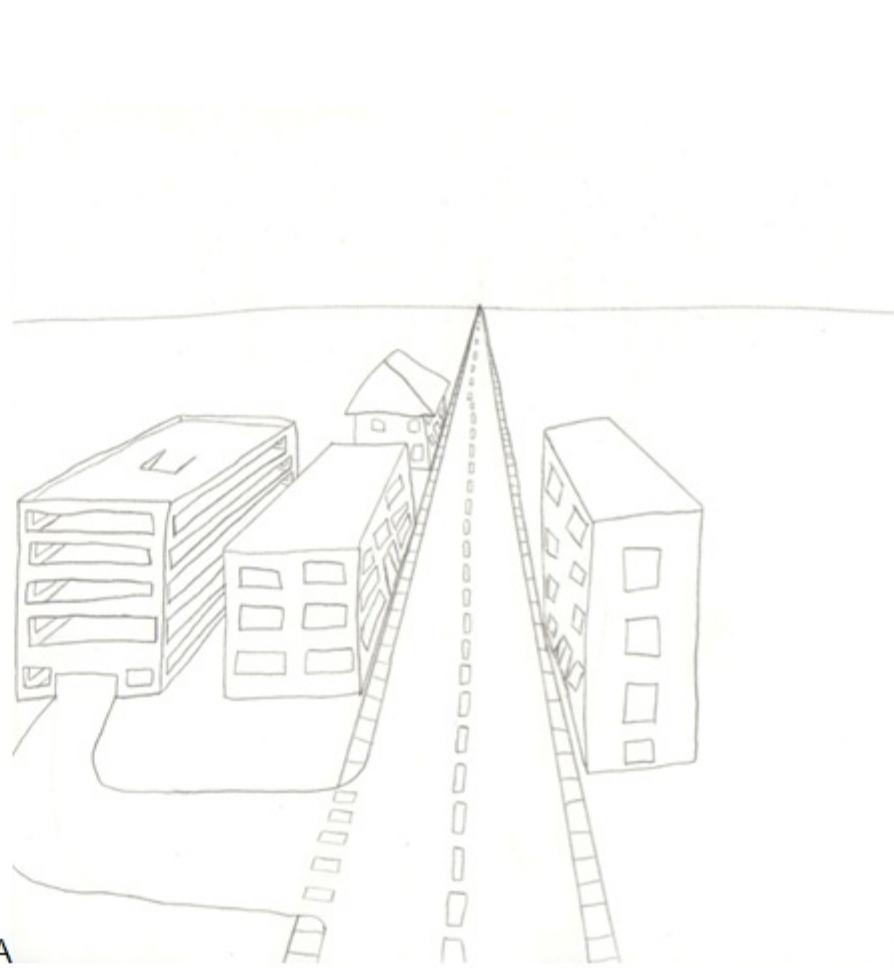
Student comments

Submit for Grading

Figure E-1. Scoring rubric.



A



B

Figure E-2. Sample artwork. A) Non-mastery. B) Mastery.

APPENDIX F DETAILS OF EIGHT SYNCHRONOUS SESSIONS

Session 1

The first synchronous Art lesson was held on March 16, 2011 at 11 AM. 10 days prior to the scheduled session, I sent an email to students in M/J Orientation to Art 2D inviting them to the live sessions (Figure 4-1). Initial feedback included questions regarding the required Parental Consent and Student Assent forms (Appendix D). Four students responded and two of them attended the session.

I entered the session 35 minutes before the scheduled start time. Two students, Student A and Student B, were already there. Together they were typing in the chat area and Student A was decorating the whiteboard. The student's discussion provided evidence that they knew each other from their asynchronous course as they typed about being reprimanded by their teacher for emailing back and forth about non-content related topics.

At 11:00 AM I started the session by introducing this project and myself. I had technical issues with the camera, which took approximately three minutes to solve. Once everything was working properly, I acquainted them with the new technological tools to be used within Blackboard Collaborate: chat area, whiteboard, and video feature. They were particularly interested in the live shots from my Art studio. Keeping with the layout and format of the asynchronous lesson, I began by briefly reviewing the objectives of this lesson: to learn the characteristics of space in design and use space in the creation of a design. Next, I posted an image on the whiteboard that demonstrated good use of space by the way it showed perspective and changes in value and size.

With the image on the whiteboard, I prompted a discussion on components of perspective: horizon line, point of view, and vanishing point, which was the ultimate goal of this lesson. Student A and Student B provided feedback and shared personal connections to our conversation by telling of other examples of horizon lines from their personal experiences such as, horizon lines at the beach while watching a sunset.

The asynchronous version of Lesson 2.05, contained an optional video link to a demonstration of how to draw a one-point perspective image. Since this was a live lesson I did not use the prepared video and instead I asked them to draw along with me while I drew an example on paper under the camera (Figure 4-5). I drew a horizon line and vanishing point while explaining what I was doing to the students so they could follow the same steps. Next, we determined a point of view to be used by the artist while drawing the horizon line. I then added two diagonal lines to form a road. Both students agreed that they were following along well. Then, I formed the sides of a building along the side of the previously drawn road. Student B stated that she messed up and asked me to repeat the process. In the meantime, Student A was doodling on the whiteboard.

As I repeated the steps I realized that Student B was stuck on adding the horizontal line on top of the buildings. I asked her if she wanted me to repeat the drawing on the whiteboard too. Student A started copying everything that I did on the whiteboard. Since other students could see her drawing, it became a distraction and I asked her to stop. While I continued to draw, Student B let me know that she had started to understand and that repeating it had helped her. Student A asked a few more questions which indicated to me that she had not been paying attention. I then

reviewed the scoring rubric from the asynchronous Art course's Lesson 2.05 drawing assignment. I explained to them that in order to earn full credit on that rubric they would need to elaborate on the image just drawn. Student B asked if she could draw other things besides buildings. Together we named numerous possibilities for completing the picture. I strongly encouraged all students to resubmit their work.

Entries from my reflective journal indicated that my initial reaction to this session related to attendance, I wondered why more students didn't show up. I felt that the required consent forms might have prohibited more students from attending. Next I reflected on my instructional delivery. While watching the lesson recording of the drawing I had done for the demonstration, I realized that the students became distracted from the intended point of the lesson by focusing instead on drawing the building realistically. Entries in my reflective journal showed that I then determined that a simple shape would have been a better way to keep their focus on the lesson. My solution was to create a basic shape under the horizon line rather than start with an identifiable object. This would ensure that the students could complete the process without the expectation of their drawn image appearing "correct." I began to wonder how much more impactful my own instruction could be and that of other teachers if they periodically recorded then analyzed their own teaching. Finally I thought about how excited the students seemed when they were able to see what I looked like and see my Art studio. They seemed fascinated to see which gave me the impression that they were lonely.

Session 2 & Session 3

The second synchronous Art lesson was offered on March 22, 2011 at 8 PM and the third on March 23, 2011 at 9 AM. Six days prior to the scheduled sessions, I again

sent the email (Figure 4-1) invitation to attend a live session to students in M/J Orientation to Art 2D explaining the synchronous sessions. I also asked their regular Art teacher to help by advertising the session in her course. Unfortunately, the advertisement listed an incorrect time. No one attended either session.

After the scheduled time for my sessions, I received emails revealing the confusion regarding session times. I then understood that the students referred to their teacher's communication more than what I, an outsider, had sent. As a result, I started signing my emails as "Mrs. X's friend and Teacher's Assistant," to help validate my emails.

I also tried a new method for obtaining permission signatures from parents and students. I assumed that making the paperwork as easy as possible would help ensure more students would join the sessions. As an effort to better accommodate and help recruit more students, I provided the students with the option to digitally sign the forms.

Session 4

The fourth synchronous Art lesson was offered on Sunday afternoon, March 27, 2011 at 4 PM. Two days prior to the event I sent an email reminder to the students in M/J Orientation to Art 2D. Even with these new initiatives to gain student volunteers, there were no participants during this session. I decided that they might appreciate what a live lesson looks and feels like, so for future invitations I attached an image taken from the first session. The image included the whiteboard, with the video image of my hand drawing a one-point perspective image.

Since there were no participants during the session, I decided to reach out to their teacher again for help and suggestions. I asked her to send out an email to students and parents qualifying me as an Art teacher and emphasizing this as an opportunity to

submit or resubmit the assignment for Lesson 2.05. Not only did she agree to send a message, she did so the very next day (Figure 4-6). Her email contained helpful hints regarding accessing the Blackboard Collaborate session and suggested that they set their alarms to remind them to attend. She also agreed to suggest my sessions to students when giving feedback to their assignments.

Session 5

The fifth synchronous Art lesson was offered on Monday afternoon, March 28, 2011 at 8 PM. Two students (Student C and D) as well as Student A and the classroom teacher attended this session. Although much of the content and processes were identical to the first session, I felt that this one was much smoother, specifically in regard to my instructional methods. Keeping field notes and reviewing them after the first session helped me to formulate a plan for the next session. I decided to focus on strengthening areas of weakness in instructional delivery and pay close attention to the interaction from and between students attending the session.

At 6:45 PM I started testing the equipment to ensure the camera was working. Student A, who had been in attendance during the first synchronous session, entered the session. She complimented the previous session and stated that she was excited about being able to attend again. Soon after Student C joined, Student A greeted her. Then Student A began to draw the steps of the lesson on the whiteboard showing that she knew exactly what to do by ‘helping’ me.

Student C had trouble seeing the live video feed within the session. As we worked through solving her technical issues, their regular Art teacher and Student D arrived. The opportunity to work through Student C’s video issues helped me assist other students in later sessions.

During session one when Student B admitted she was lost and needed me to repeat the process, I realized I could have provided instruction for this part differently by asking the students to draw a simple shape first as they learned the one-point perspective process. For session two, I directed them to draw a box first and then I showed them how to draw the guidelines to the vanishing point. Not only did I feel more comfortable with the instruction, there weren't any questions or requests to repeat steps from the students.

Although I tried to employ Student A with tasks to keep her busy, she was spent most of the session off task and became a distraction to me and the other students. One benefit of having the regular teacher in this session was that she was able to help with Student A by giving her warnings and making suggestions for her to complete several overdue course assignments. My reflective journal entries showed that I began to wonder why the student had still not resubmitted the assessment from the first session.

Since Student C had already submitted this assignment from asynchronous Lesson 2.05 and received a rubric score, I asked if the live session was a benefit to her. She commented that it was much easier since she is a visual learner and could see more of the process this way. Student D chimed in that she had learned enough to go ahead and submit the assignment because of what she learned from this session.

As I reflected on this session, I tried to think about Student A's motives for attending the session. Because of the fact that she had not resubmitted the assignment and because she attended the sessions well in advance of the starting time, and finally because she insisted on 'helping' my instruction, I believed that she was attending just

to socialize. Given my experiences as both an online instructor and administrator, I am actively involved with issues associated with student satisfaction. Historically, student-to-student communication is limited in the FLVS instructional environment. I was excited to think that supplemental synchronous instruction might enhance student engagement as well as satisfy some of the need for student-to-student communication. I also reflected about the classroom instructor's attendance in this session, and impact on the flow of the lesson. I began to wonder how much more impactful the supplemental synchronous session could be if taught by their regular teacher.

Session 6

The sixth synchronous Art lesson was offered on Thursday, March 29, 2011 at 10 AM. Along with my own email solicitations, the teacher sent out a reminder. Three students (Student E and F) as well as, Student A attended this session. I wasn't able to join this session until a few minutes before the start. I learned for future sessions to disable all participant whiteboard privileges until the moderator arrives since students should not be using the whiteboard unsupervised. Student A was introducing the lesson by including words like, "Duh" next to the supply list that she typed. While they waited for the session to start the students talked about Art, student names, and Harry Potter. As I communicated with one student about our favorite sports teams, Student A interrupted our conversation by typing that I was a good Art teacher, indicating she wanted attention from me.

Since Student F's first submission of the assignment following the asynchronous lesson earned him a 5/20 rubric score, and since Student E had not yet submitted the assignment, I focused more on looking for cues that these two students understood each concept before I moved forward with the drawing. I found the lesson to flow better

than the last session due to my comfort level with the tools in Blackboard Collaborate. This session flowed much like the last as far as content. One change I made was to reemphasize the regular assignment-scoring rubric earlier in the lesson as a way to help Student E identify areas that he may need to concentrate on during resubmission. I also tried to qualify Student E's unsuccessful attempt at the lesson by stating that this is a challenging assignment.

In order to prompt cues for moving forward throughout the session, I asked them to make virtual signs (emoticons) to let me know when they were ready. I also drew the steps in a different order; first on the whiteboard and then on my paper. I thought this may help them see a little better and might encourage them to watch me first before trying themselves on their paper.

Student E exclaimed that he thought the session was a lot of fun and was sure he would score a 20/20. He even brainstormed out loud several things he could include to complete the assignment (later when I looked at his resubmitted assessment rubric score, I saw that he did earn a 19/20). Student F remained fairly quiet throughout the session, so I made sure to call on her a few times. She then let us know that she was accessing the session from school and had to switch classes. This also explained why she was so quiet throughout the session. Student A proved helpful when she reviewed the whiteboard tools with Student F.

Session 7

The seventh synchronous Art lesson was offered on Monday afternoon, March 29, 2011 at 5 PM. Two new students (Student G and H), repeating students (Student A and F) and another M/J Orientation to Art 2D teacher (Mrs. H) attended this session. Reflecting on the sessions by putting entries in the journal and keeping field notes

helped me improve my instructional delivery in the lessons. Having another art teacher attend also prompted me to think about possible impacts beyond student effects such as teacher excitement over new methods for presenting material. I also wondered why I had never thought previously to record myself teaching.

This session taught me several things about student use of the video feature within Blackboard Collaborate during the live sessions such as student excitement over showing their own work and students using video as a socialization tool. Student A was waiting in the session just as soon as I arrived to set things up. She immediately asked about how to use the video feature. I gave her instructions and reminded her that it would only be me using the video feed during class. I used this opportunity to recommend that she look into joining the Florida Virtual School Student Ambassador Club. My thought was that this would be a good way for her to be involved and use technology. I emailed her the information as soon as the session ended.

Another Art teacher, Mrs. H, joined the session. She commented that she had heard about the sessions and wanted to see how they worked. At this time Student F (repeater from the previous session that day) arrived along with Student G. Knowing that Student G had not had the synchronous lesson before and that Student A and Student F had already had the session but had not resubmitted their assignment, I taught the session as if they were all first time viewers using the format from the previous session. Making no changes to that session seemed appropriate since it had engaged the students in their learning so well.

Once again Student A became a distraction. She continually clicked the “raise hand” button, which made a ‘dinging’ noise each time. I instructed her to mute her

button, which she did. I asked each of the students to participate by taking turns using the drawing tool to draw things like horizontal and parallel lines, label the horizon line, and even locate the perceived vanishing point in the image. They all managed to do a good job with the assigned tasks. Student A appeared engaged by helping with the assignment, but then continued with doing things like talking in the microphone, drawing on the whiteboard, and raising her hand.

Many times during this session, I asked students to teach the steps to the other teacher by drawing on the whiteboard thus reinforcing their understanding of the concept. All of the students were able to accomplish the task. After the instruction ended, I invited them to share their work by using the video feature. Student G was quick to respond and was very proud to share his work. Later, his mother sent me an email that stated his delight with the live session (Figure 4-7).

Session 8

The eighth synchronous Art lesson was offered on Friday morning, April 8, 2011 at 10 AM. Four new students (Student I, J, K and L), repeating student (Student A), and their asynchronous classroom teacher (Mrs. C.) attended this session. After careful review of the session's recording, I decided that this session was the most successful. I feel the success was attributed to the level of interaction between students and between the teacher and students.

Once I entered the session, three students started finding ways to 'play' within in the chat area. For example, I asked, "Who's ready to get started?" Within seconds one of them typed, "I'm ready." Quickly after that another one typed, "Me too." And then they took turns typing: Me 3, Me 4, Me 5 and so on. Student J was concerned that she

didn't have a ruler, but figured out that by stapling index cards together, she made a straight edge. She was also fascinated that she could see into my Art studio.

When their teacher arrived, they all were very welcoming to her. Because they were excited to see her, I could tell that having their actual teacher in attendance had a positive impact on student engagement. Previous knowledge of the students' personalities, academic performance, and prior relationships seemed to come out during this session. This really proved helpful when Student A became a disruption. The teacher immediately disabled all her tools and started a private chat with her. She told Student A that she was disappointed that the student was not on pace and expected her to leave this session and get busy. Student A did just that.

Without the distractions of Student A, I felt like I was more able to focus on the needs of the group. Student J asked me a question while I was demonstrating the process. I thought I understood this question and answered her. When I asked if my answer helped, she told me that she didn't understand. I gave her the option of 'showing' me what she meant instead. As it turned out, I didn't understand her question and by seeing what she meant, I was able to help. Student J not only understood the concept, her question proved that she was ready to go beyond one-point perspective and into two-point perspective. I immediately wondered if I would have known this without the live lesson.

Two students arrived late so I used this opportunity to have Student I and J teach the process. They demonstrated mastery with their directions. The teacher messaged me that it was wonderful to watch them teach, rather than watching the teacher teach it again. We concluded this session with some time to 'play' on the whiteboard. This

playtime had been popular with all the sessions since after the session has concluded, I had to “remove” them before they were ready to leave.

I decided that Session 8 would conclude the synchronous session for Lesson 2.05. The classroom teacher decided to teach her own live lessons as a result of what she learned from her two experiences in my synchronous sessions. I felt saturation had been reached in data collection of documented student behaviors and with my improvements in instructional delivery; therefore, advertising and then hosting two synchronous sessions would have been counterproductive for both of us.

APPENDIX G
FIELD NOTE CODE CHART

Code	Field Note Reference	One Example from Field Notes
Teaching Opportunity	Session 5, 3/28, pg. 3	The next step was to figure out how big the object is to be drawn. I related it to slicing a loaf of bread.
Repeat Requests	Session 1, 3/14, pg. 4	Student B took the mic and said that she was still a little confused about how to draw the roof of the building and asked to see it done again.
Differentiation	Session 6, 3/29, pg. 3	I reviewed the process from a different perspective on the whiteboard to review the steps.
Checking for Understanding	Session 1, 3/14, pg.4	I asked them to help me figure out the point of view in the picture to determine placement of the features.
Asking Clarifying Questions	Session 6, 3/29, pg. 3	I reviewed the ways that they could receive full credit for their work on this assignment. Student F proved to be listening when he said, "If I use things like windows, for a building, would it count?" I agreed and he said, "ok cool ☺"
Relationship Building	Session 6, 3/29, pg. 2	Student A told the other students what she had for dinner. Student F and I discussed the Gators.
Student Approval of Live Lesson	Session 5, 3/28, pg. 4	Student G commented that this session was easier than reading the assignment on line.
Teaching Mistake	Session 1, 3/16, pg. 4	I admitted that I had drawn it incorrectly the first time and proceeded to correctly show the student again.
Mix-up Moments	Session 1, 3/16, pg. 2	I spent 3 minutes dealing with camera issues, but WAS able get it to work.
Student-to-Teacher Engagement	Session 8, 4/8, pg. 2	Student J presented the teacher with a hypothetical scenario in the chat box, "What if you drew it like almost right under it, the bottom corners would overlap?"

Code	Field Note Reference	One Example from Field Notes
Learning	Session 1, 3/16, pg. 4	After Student B successfully drew the line she typed, “I DID IT!!!” in the chat box. She also said, “ya that helped a lot.” Her response was a result of a second instructional demonstration of process in the camera.
Student-to-Student Interaction	Session 8, 4/8, pg. 2	Because of a chat conversation with Student J, Student I asked a question about the perspective and position of the imaginary viewer of the drawing.
Student Questions	Session 1, 3/16, pg. 4	The teacher drew a vertical line on one of the diagonal lines. Student B: “do we copy?”
Student Excitement	Session 6, 3/29, pg. 2	Student F said, “Done. This is soooooo much fun!! ☺” and “I’ll probably get a 20/20”
Student Encouragement	Session 5, 3/28, pg. 2	Student C said, “That is good for you” to Student A as a compliment.
Student Engagement with Technology	Session 8, 4/8, pg. 1	Upon entering the session, I found a decorated whiteboard and 3 students; Student A, Student I, and Student J.
Socializing	Session 1, 3/16, pg. 2	oh! well the reason that I have not been emailing you is because I got in big trouble with the teacher! Student B: I TOLD U!!!! Student B: did i not tell u? Student B: ? Student A: yea?
Student Off Task	Session 1, 3/16, pg. 2	Student A left to go check on her sister who she said: “sisters being stupid. Shes tring to cok [trying to cook]. Brb.”

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