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Online Education: The Relationship Between the Perceptions of Online High School Teachers Compared to Traditional Classroom Teachers Regarding the Visual Arts

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Online Education: The Relationship Between the Perceptions of Online High School Teachers

Compared to Traditional Classroom Teachers Regarding the Visual Arts

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by

Karen Ann Fine

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ABSTRACT

Online Education: The Relationship between the Perceptions of Online High School Teachers

Compared to Traditional Classroom Teachers Regarding the Visual Arts

by

Karen A. Fine

The incorporation of the arts as an academic subject in the high school distance education delivery method is being reinvented as something new. Most of the current research is focused on college courses. Online high school curricula are most often placed in research studies as an afterthought. Perceptions of faculty members from high schools with traditional instructional delivery models as well as public online schools concerning online education as it relates to the arts in 5 different areas was the focus of this research; mentor, delivery method, satisfaction, student learning, and curriculum. Examining the perceptions of teachers gives a blueprint for future learning regarding course design to meet the unique online delivery method. Further, it reveals ways that curricula from areas of the curriculum traditionally perceived as difficult to teach in an online setting can be structured.

The purpose of this quantitative study was to investigate the perceptions of high school faculty members of online instruction of visual arts compared to traditional face-to-face instruction regarding visual arts mentor, delivery method, satisfaction, student learning, and curriculum. Data collection techniques included the use of a survey with a 6-point Likert-type scale and collection of demographic information. Data were analyzed through a nonexperimental quantitative methodology further explained through 5 dimensions (mentor, delivery method, satisfaction, student learning, and curriculum). In faculty members age differences, gender, years

of teaching, and subject area taught were investigated to see if there were any significant differences.

The population included faculty members of online and traditional high schools in the southeastern United States. The following states were chosen for the study; Florida, Georgia, North Carolina, Tennessee, and Virginia. There were 490 participants in the online survey. This study revealed that there is statistical significance difference in several age groups and years worked in the delivery dimension. There is also statistical significance difference in the satisfaction and curriculum dimensions in the academic discipline grouping for fine arts. Curriculum dimension was also found to be significant in the online delivery method. The dimension of student learning was statistically significant in age groups. Findings also revealed that there was significance found in the mentor dimension in the delivery method of the traditional group. There was no significance difference found in gender with any of the dimensions.

DEDICATION

To my father Sumner S. Feinstein, thank you for being such an inspiration in my educational pursuits. Words cannot express how much I love and miss you each day. You instilled in all of your children a love of education from the time we were very young. I also enjoyed all of our artistic explorations at various galleries and museums that allowed me to combine my love of art with education. I was encouraged to continue my studies against all odds and am so grateful that you were there at the beginning of my journey to motivate and love me unconditionally. Your spark continued after your passing each and every time I felt I could not complete my course of study. I heard your voice in my ear telling me to persevere, dust myself off and move forward.

To my family, friends, and "work family", on my life journey you have been my teachers and have inspired greatness in me. Each and every one of you brings me a piece of yourself that lifts me higher than I could have done myself. You have loved me unconditionally as I chose to walk a path that was often quite different from your own. I love each and every one of you and consider you special "cheerleaders on my life journey".

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Thank you to my ETSU family that I have come to know through our *internet connection*. Even though I was working from my home office, I felt a connection whenever I reached out to my fellow students, the ELPA support staff, the library staff, and the Veterans Office. You have made this journey smoother with your caring and helpful attitude.

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CHAPTER 1

INTRODUCTION

Distance education in varying forms has been around for many decades (Barbour, 2013).

The incorporation of the arts as an academic subject in this delivery method is being reinvented

as something new. There is now a plethora of information about distance learning that most often

takes the form of online or computer delivered style of learning (Chen & Jones, 2007).

Additionally, most of the current research is focused on college courses. Online high school

curricula most often must follow state generated guidelines for each subject.

Each state has specific curricula designed to meet the needs of its student population.

Curricula mandates are changed periodically to adapt to the changing information that students

must learn. Often, curricula changes require committee meetings at the state level, adoptions at

the local level and implementation at the classroom level. On the State of Tennessee's education

website, https://www.tn.gov/education/ the curricula sections of the website there is no mention

of differentiating between online and traditional schools in the content delivery. It is up to the

individual school system's board members to navigate the delivery method.

Rice and Dawley, (2007), Roe (2011), and Watson, Gemin, and Ryan (2009) stated that

there are five types of K-12 online programs; statewide supplemental, district-level

supplemental, single-district cyber, multi-district cyber, and cyber charter. The statewide

supplemental program had students take individual coursework but were enrolled in a traditional

school or cyber school in the state. These programs were authorized by the state and controlled

by the state board of education.

There is the district-level supplemental program which was operated by autonomous

districts and was not tracked by state agencies. Next, the single-district cyber schools give an

alternative to the traditional face-to-face school environment and were given by individual

districts for the students only in that district. The multi-district cyber schools were also operated in a specific school district but could enroll students from other school districts within the state. This area represented the most growth in K-12 online learning. Finally, there was the cyber charter which is a school that was chartered within a single district but was allowed to draw students from across the state. Quite frequently this type was in some way connected to a commercial curricula provider.

Perceptions of faculty members from schools with traditional instructional delivery models as well as public online schools concerning online education as it relates to the arts is an area worthy of investigation. Each year new state legislation increases the availability of online options for high school students and how the faculty deals with the increasing pressure to teach in an online delivery method which include all subjects including the arts.

Faculty members find themselves reluctant to teach online courses because they are scared of the various technological applications. Changing online pedagogical frameworks are sometimes difficult for faculty members (Lieblein, 2000). However, when faculty members do embrace online teaching their positive attitude is directly related to positive levels of satisfaction according to Xu and Meyer (2007).

Faculty members must make it a priority to learn the new technology and have a deep literacy for this new language of computer skills even if they are primarily teaching in the traditional classroom. It is more imperative as online education gets increasingly popular for teachers to not only learn the new technology but incorporate it into their pedagogy to be as symbolically charged as a piece of chalk writing on a blackboard. Casey (2008) concluded that:

> Distance education flourished in the United States for three main reasons: (1) the great distances of citizens from educational institutions, both geographically and socioeconomically; (2) the thirst for education; and (3) the rapid advancement of technology…the significant parallels between the development of distance learning and

the expanding role of technology in mass communication suggests that technology is the most compelling developmental factor. (p 45)

Research in adult distance learning started with the analysis of student achievement relative to traditional instruction. The K-12 distance learning research has followed the same path by using comparisons with a traditional delivery method (Cavanaugh, 2001). Cavanaugh concluded from research, expectations for traditional classroom environments were equivalent to well-designed distance education classrooms (Cavanaugh, Gillian, Kromrey, Hess, & Blomeyer, 2004).

According to the Handbook of Research and Policy in Art Education (2004) art education should deal with contemporary issues and look beyond to newer possibilities because in today's society the intent is to prepare students effectively to contribute to society. In this shift of teaching styles through technology art educators must learn new ways for their subject matter to be taught alongside math and language arts.

Statement of the Problem

The purpose of this quantitative study was to investigate 9-12 faculty perceptions of online instruction compared to traditional face-to-face instruction regarding visual arts mentor, delivery method, satisfaction, student learning, and curriculum.

Examining the perceptions of teachers using a survey to be given in both types of school settings (traditional and online) will give a blueprint for future learning regarding course design to meet the unique online delivery method. Further, it may reveal ways that curricula from areas of the curriculum traditionally perceived as difficult to teach in an online setting can be structured. Visual arts are an area where teaching online brings a set of possible challenges in the component of art making. There is little research surrounding the area of teaching visual arts online.

The literature links satisfaction of visual arts courses with increased engagement in those courses. This researcher is interested in any similarities or differences in the satisfaction level perceived by faculty members teaching in a traditional way compared with faculty members teaching online in regards to visual arts.

By investigating the online method of delivery, faculty members will have a better understanding of how online education works in supporting the mandated state art curricula. In faculty members age differences will be investigated to see if there are any significant differences between the age of the teacher and their feelings about teaching visual arts in an online delivery method. In addition, gender will be investigated between male and female faculty members to investigate any differences between the gender of the teacher and their feelings about teaching visual arts online.

Significance of the Study

To determine whether online education is a viable option for visual art courses more research is needed on faculty perceptions regarding online courses. Findings from this study could provide a data-based resource for high school administrators when deciding to offer online course options. The state educational leaders could use the data when creating new legislation regarding online courses that prepare students for college level learning. The data from this study could provide answers for faculty members in course design. Alternative lesson structures may emerge from the data analysis including digital media responses added to traditional art making, art history research conducted in virtual environments and differentiated instructional design on project submissions. Additionally, changes that may benefit student learning could result from the data obtained from the study. The nature of asynchronous online course design provides learning for the student in a self-motivated environment.

Because this type of inquiry of visual art is mostly uncharted territory, the data may provide a foundation for further study in other areas of art curricula. Music and theatre are other areas in the arts that could benefit from this inquiry.

The data analysis by this researcher may also reveal the need for more professional development for faculty members in course design and delivery methods so they can become more comfortable using this delivery method. Stereotypes of what those perceive as typical online issues could be dispelled using the data from the open ended questions.

<center>Research Questions</center>

The research questions guiding this inquiry were developed using the following dimensions: mentor, delivery method, satisfaction, student learning, and curriculum. The following research questions, derived from the purpose statement were addressed in this study:

Research Question 1: Are there significant differences in the mean scores on the visual arts survey for the perception of the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) between faculty members who teach online and those who teach using traditional methods?

Research Question 2: Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by age groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older)?

Research Question 3: Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by gender for participating faculty members?

Research Question 4: Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more)?

Research Question 5: Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by academic discipline area for participating faculty members (STEM, ELA, Fine Arts, Social Sciences)?

Definitions of Terms

For the purpose of this research the following terms are defined as follows:

Blended Learning: Blended learning is a combination of learning in a traditional school setting away from the home and at least in part through online delivery with some element of student control over time, place, path or pace of learning (Horn & Staker, 2011). This type of learning is often referred to as hybrid learning

Distance Education: The most popular descriptor when referring to distance learning is distance education. This is sometimes used as an umbrella term for distance learning. It describes the effort of providing access to learning for those who are geographically distant. Distance learning is described more as an ability where distance education is more the activity of learning at a geographical distance (Moore, 2013).

E-learning: E-learning is a type of online earning where the coursework is strictly accessible using technological tools that are either web based, or web capable (Moore, 2013). Synonymous terms are; online course learning, web based learning, distance learning.

Online Learning: The process where a student accesses and participates in coursework through the use of technology (computers) and the internet (Dalessio, 2012).

Traditional school: For the purposes of this study, traditional school is limited to a public school that has buildings where students attend for learning. An alternative name for this type of schooling is brick-and-mortar (Ralston, 2015).

Synchronous: Two-way communication that occurs with very little time delay that allows the participant to respond in real time (Murphy, 2005). This could include teleconferencing, skype, and WebEx.

Visual Arts: Visual arts include the traditional fine arts such as drawing, painting, printmaking, photography, and sculpture; media arts including film, graphic communications, animation, and emerging technologies; architectural, environmental, and industrial arts such as urban, interior, product, and landscape design; folk arts; and works of art such as ceramics, fibers, jewelry, works in wood, and other materials (Visual arts, 2016).

Limitations and Delimitations of the Study

In alignment with the purpose of this study, the subjects were delimited to a sample of high school faculty members from traditional public schools and public online schools in the same southeastern states (FL, GA, NC, TN, and VA). Therefore, the results may not be generalizable to all public schools in the United States.

The second delimitation occurs with the response of the survey that was sent out by email. Although the survey was sent to many individual high school faculty members from five southeastern states, the actual respondents may not be an indicator of all faculty member perceptions regarding the visual arts. Those with little computer background may not feel comfortable using an online survey method.

The third delimitation may occur because of variations of web enhanced teaching that may not have been included in the questions included in the surveys. This researcher only included asynchronous and blended online learning that may not be representative of all online delivery methods. This may create a situation where the survey results received would not be representative of all public school high school teachers. There may also be a higher percentage of private schools that offer online learning that are not represented in this study.

A limitation may be found in the email address lists that could be out of date if the addresses were not updated on state websites. New personnel could be present in the school systems and may be missed with a mass email mailing. Another limitation would be the time of year that the survey was sent out, which could be a factor that might have affected the response rate. Public school calendars vary in different school systems and the end of the school year vary in each state. If the teachers do not have access to the survey link through their school email account when not at their teaching job, the teachers may be less likely to fill out the survey.

The statistical tests that are chosen to analyze the results of the surveys placed in SPSS are assumed to be appropriate to formulate the variable differences needed to answer the research questions that are posed. If the wrong statistical tests are chosen and run, the data derived from those results may not adequately provide answers to the Research Questions posed in this study.

<div align="center">Summary</div>

The purpose of this quantitative study was to investigate 9-12 faculty perceptions of online instruction compared to traditional face-to-face instruction regarding visual arts mentor, delivery method, satisfaction, student learning and curriculum. Visual arts teachers will have to strategize what works in their pedagogy to be considered legitimate as more programs migrate to forms of online learning.

This study has been organized into five chapters. Chapter 1 includes introduction, statement of problem, significance of the study, research questions, definitions of terms, and limitations and delimitations of the study. Chapter 2 contains a review of current literature regarding online education, art education, and online art education. Chapter 3 presents the methodology used in the study. Chapter 4 includes the findings of the data analyses. Chapter 5 incorporates the summary, findings, conclusions, and recommendations for this study.

CHAPTER 2

REVIEW OF LITERATURE

Education that is taught at a distance has been around for many years according to

Barbour (2013) and each year increases in popularity. The most popular delivery method for

distance education is using Internet technology. Due to state curriculum guidelines, public online

high school education must navigate through multiple laws to be compliant with online

pedagogy (tn.gov., 2016).

Although many believe high school online education is a positive step towards embracing

new technologies, there are factors that contributed to negative perceptions in online learning.

Some opponents to online education reported the introduction of 100% online high school

diluted the existing brick-and-mortar schools and their programs (Chen & Jones, 2007).

The characteristics and behaviors of in-classroom teachers were similar to online

educators (Barbour, 2013). According to the literature teachers reported that there were

differences teaching in-classroom versus online with verbal interactions replaced by

technological tools (Siedlaczek, 2004). Barbour et.al, found teachers frequently reported feelings

of isolation and being disconnected from their traditional peers. Rice and Dawley (2007) stated

62% of online teachers did not receive adequate training for an online environment. In the

research study conducted by Barbour et al. (2013), three areas of teacher disconnection in online

delivery were found. Teachers reported a disconnection from their students, from their ideas of

what they perceived a teacher to be, and a disconnection with their peers.

Some educators must revise the instructional models that they have been using for many

years to properly teach online. Rosenthal (2010) shared several areas of reinvention that needed

to occur when creating an online classroom. It is possible that mentoring of new online educators

should be investigated further as a way to assist the teachers with the transition from traditional classroom settings to teaching online. In regards to teaching art online, recent literature suggested that art teachers are embracing technology cautiously and in small doses (Roland, 2010). As new computer technologies developed over the years, artists have started to recognize their importance and have brought them into the art making process. According to Wilks, Cutcher, and Wilks (2012) visual art literacy could be complemented by the development of technology.

A global transformation in our culture has occurred that is dependent on visual imagery. The visual arts are part of this larger visual culture that includes fine art, advertising, folk art, television, and other forms of visual production. The increasing number of visual cultural objects and images shapes not only art education in the 21st century but also the connections between intertextual visual forms (Freedman & Stuhr, 2004). Whether teaching visual arts or any other subject online there were some characteristics both positive and negative found (McLester, 2002; Murphy, 2005). According to McLester positive attributes occurred where life was more relaxed, time was flexible, and the pay was good because it was per student. On the negative side, teachers missed their colleagues, more hours were put in per course, teachers missed the close in-person relationship with the students and parents, and the teachers felt that they had less job security. Online delivery is well-documented, with positive and negative outcomes (Buffington, 2008; Harting & Erthal, 2005; Holmberg, 1995; Liu & Cavanaugh, 2011; Moore, 2013). Research about teaching art education online did not appear to be a topic that appears in the literature often.

Another area of investigation in online education is student achievement related to teaching effectively. Student achievement research has clearly indicated that online programs are

as effective as in-classroom instruction (Barbour, 2013). According to at least two sources, there was no significant difference between test scores of those students enrolled in traditional and online courses (Chen & Jones, 2007; Ernst, 2008).

This researcher believes, when investigating current perceptions of high school faculty members in regard to online education, it is important to take a look back at the historical timeline of both online education and specifically art education. This historical review provides the modern researcher with a logical context in which online education has evolved.

<div align="center">The History of Online Education</div>

Online learning (or distance education) has evolved as new technology has been developed (Johnson, 2014). Researching perceptions of teachers about online education began with an understanding that included the history of online education. The printing press may have been the first distance learning technology. Into the 19th century, educational technologies were limited to face-to-face instruction and print. Walter Smith, the Boston art supervisor in 1881, described the classroom blackboard as the educational equivalent of the steam engine, and referred to the blackboard as being a new technology (Stankiewicz & Garber, 2000).

Correspondence education was considered the first type of distance learning. When a reliable postal service was developed that could carry the lessons to the student and then back again to the teacher this type of learning was conceived. Its roots began in early institutions in the late 1700s into the 1800s started in England, Germany, and then in 1873 Boston (Ellefson, 2015; Harting & Erthal, 2005; Hartnell, St. George, & Dron, 2011). One of the earliest examples of the correspondence distance education model was an advertisement in the Boston Gazette on March 20, 1728, that offered to send weekly shorthand lessons to prospective students (Holmberg, 1995).

According to Ellefson, (2015) New York State authorized degrees at Chautauqua College of Liberal Arts to students who completed correspondence courses and summer institutes between 1883 and 1891. In the 1800s Anna Eliot Ticknor started a correspondence school based in Boston, Massachusetts. Ticknor included studies in 24 different subjects within six departments; history, science, literature, art, French, and German. Because many women stayed at home, the population of the coursework was primarily women (Harting & Erthal, 2005; Hartnell, et al., 2011; Ticknor, 1897). In the 1880s, according to MacKenzie & Christensen (1971), Thomas J. Foster organized tutors to help him grade assignments from a correspondence mine safety course that then eventually turned into the International Correspondence School. Harting and Erthal (2005) described the lyceum movement that taught adults and shared information on the arts, sciences, and humanities as having a correspondence element.

The lyceum originated in Scotland and became popular in the United States after the Industrial Revolution. Lyceum were considered educational because they served the portion of the population that did not attend formal schools and the students could take one course at a time for little money. After the lyceum movement dwindled following the Civil War, the Chautauqua became popular. This tent show movement brought educational talks to small towns in America, primarily in the form of summer institutes. The Chautauqua provided home-study courses that were supplemented with other materials from the Chautauqua publishing house. They also offered a correspondence 4-year program of reading where students could earn certificates (Harting & Erthal, 2005).

In the mid-1800s Oxford and Cambridge started offering home-study correspondence courses (Harting & Erthal, 2005). In 1883 a Correspondence University was established in Ithaca, New York. Around the same time, William Rainey Harper developed the correspondence

school, United Kingdom's Open University, which was the world's first university to teach only at a distance (Harting & Erthal, 2005; Hartnell et al., 2011). Schools began using radio for adult education by 1928. Early broadcasts had accompanying reading lists and notes. At the University of Iowa, they began experimenting with transmitting a television course in 1932, which was 7 years before television was introduced at the New York World's Fair. In the late 1950s television programs were used in 17 courses. In the 1960s and 1970s the number of television courses increased to over 233 (Carnegie Corporation, 1979). In the 1970s universities set up instructional television fixed services that allowed them to set up courses with other campuses.

In the 1980s the Adult Learning Service (ALS) of the Public Broadcasting Service started the first nationally coordinated effort to make television college credit courses available to adults. According to Harry, John, and Keegan, 1993 one third of the country's higher education institutions have participated at one time or another in ALS. In the 1990s when high-powered personal computers, broadband communications, and digital videos became popular, those in education started to realize that these technology tools could be used for student to teacher communication. The federal and state governments in the 21st century started to embrace distance education as a viable way for students to achieve their educational goals. Congress appropriated $10 million dollars for the fiscal year 1999 for the Learning Anytime Anywhere Partnerships (LAAP) program. This program was authorized under Title IV of the Higher Education Amendment of 1998.

In 2000, $15 million was granted and in 2001, $30 million was granted. These grant numbers have grown even to present time. In 1998 the Web-Based Educational Commission Act established the Web-Based Education Commission (WEBC). (Web Based Education Commission, 2000). Many states and universities currently use an online delivery method either

asynchronously or in a hybrid form (Harting & Erthal, 2005). According to Harting and Erthal as of 2005 technologies supported five major distance learning application solutions; internet, groupware, educational TN, one-way video/two-way video, and two-way audio/video. The distribution of the instructional materials was done through; textbooks, video/audio tapes, CDs and the Internet.

In 2003 Western Governors University started the only online teachers' college in the United States (Cavanaugh, 2001). The University of Phoenix started an online campus in 1989 out of San Francisco, California. The University of Phoenix was founded in 1976 and accredited in 1978 and is currently the largest online institution of higher education. They offer 14 undergraduate degrees, 22 graduate, and 4 doctoral degrees (Harting & Erthal, 2005; Hartnell et al., 2011).

In addition to college courses available through the Internet, distance education started to become more popular for grades Kindergarten through grade 12 and continued to offer opportunities in increasing numbers. In 2002 McLester conducted a study by the Distance Learning Resource network that indicated at least 14 states had virtual high schools in place. The first state to embrace K-12 distance learning was Florida. Private home-schooling networks and religious institutions have offered alternative online coursework for many years, not to mention, many early programs were exclusionary (Ray, 2013).

The Florida Virtual School has had one of the most successful online programs. It is the nation's largest statewide public online high school. It is accredited by the Commission on International and Transregional Accreditation and Southern Association of Colleges and Schools. The state of Florida fully funds the Florida Virtual School free of charge. Currently, most states have either public, private, or charter versions of distance education.

Types of Online Learning

Many articles that represented online learning only discussed blended and hybrid programs and did not advocate complete immersion (Ernst, 2008). Online education produced varieties and subcategories of delivery methods. McClendon's article (1999) identified four types of online learning and called them generations. The first generation was the correspondence model that included primarily print. The second generation was the multi-media model that included print, audiotape, computer-based learning and interactive video. The third generation McClendon discussed was the tele-learning model that encompassed audio teleconferencing, videoconferencing, broadcast TV or radio and autographic communication. The fourth generation was referred to as the flexible learning model that was comprised of interactive multimedia, internet-based access to the World Wide Web resources and computer mediated communication. Yapici and Akbayin (2012) found in the research that some proponents of online education felt that a blended learning approach of combining face-to-face with web-based learning took the strength from both areas of course delivery. These strengths were stated as face-to-face student interaction and the individuality that online delivery can facilitate. Rice and Dawley (2007) reviewed the literature pertaining to distance education as it related to K12. In their review they included a listing of five basic types of online learning programs; statewide supplemental programs, district-level supplemental programs, single district cyber schools, multi-district cyber schools (the largest growing sector in K-12 learning) and cyber charters (Watson, Winograd, & Kalmon, 2004).

Blended learning according to Horn and Staker (2011) is defined as any time a student learns at least part time at a supervised brick-and-mortar location away from home at least in part

through online delivery with some element of student control over time, place, path, and/or pace. Horn and Staker (2011) shared six models of blended learning:

Model 1: Face-to-Face Driver- The face-to-face teacher delivers most of the curricula. That teacher then uses online learning on a case-by-case basis for supplementing or remediation. The forum for this type can be found in the back of a classroom or in a technology lab.

Model 2: Rotation- In a given course students rotate on a fixed schedule between online learning in a self-paced environment and sitting in a traditional classroom with a face-to-face teacher. It is a split between both types of classrooms. The venue for this type can be either remote or onsite.

Model 3: Flex Programs- This type of program has an online platform that delivers most of the curricula. Teachers are only used as support on an as-needed basis. Examples of this type of program include drop out recovery and credit-recovery blended programs. Platforms are also called Learning Management Systems (LMS) and have become an essential tool for online teaching. Some LMS examples include Blackboard, CANVAS, Moodle, and D2L (Al-Busaidi & Al-Shihi, 2012).

Model 4: Online Lab- This model is found in a brick-and-mortar environment but uses a platform to deliver the entire course. Most often these programs have online teachers with paraprofessionals that support while the students are in the traditional environment. Most of the students that are part of this model also take traditional block schedule courses.

Model 5: Self-blended- This model is used when students choose to take one or more courses online to supplement their traditional course offerings. The online learning is always remote, but the traditional learning is in a brick-and-mortar school.

Model 6: Online Driver- This model uses an online platform and teacher that deliver all

curricula. Students work remotely with face-to-face sometimes optional. Some also offer

traditional components. (p. 5)

<p align="center">State Policies of Online Education</p>

In a report written by Beagle, Kiene, and Penrose (2011), each state's policy beginning

with kindergarten and going through 12th grade in online education was analyzed. The report

focused on the state policy that was written for teaching in an online environment. The

subgroups that were most affected by the regulations were the state boards of education, school

district personnel who were in charge of budgets and curriculum, teachers of online coursework,

and students who participated in online education (Gustke, 2010; Watso et al., 2009). According

to Trujillo, Griffith, Snyder, and Urschel (2007) when looking at state policies about online

education most agreed that the policy should not interfere with innovation and at the same time

provide for equal access, involve parents, create curricula standards, address inconsistencies

between online and traditional course policies, be subject to successful student outcomes, and

provide for diverse student populations. These state policies often shape teacher perceptions of

online learning due a variety of mandated curriculum guidelines and online platform choices.

As a result of the study it was suggested that policy makers should develop a framework

for regulation, define online education for their state, decide about funding issues, and create

consistent rationale for which programs will be regulated (Beagle et al., 2011; Watson et al.,

(2009). Five criteria for state online educational policies were identified by Watson et al., (2009)

as a concise mission statement for online learning, leadership in place that can understand ways

to support online environments and monitor student outcomes, funding set aside in an equitable

and adequate mode for online education, ways for student outcome analysis, and support for educators in creating quality curricula.

This author chose Tennessee information provided from the state policies study that illustrated an example of virtual school policy. In 2008 the Tennessee State Board of Education published its first virtual school policy. The document was compiled using best practices from other states that had already been successful at online implementation. The document covered course approval, management of the courses, teacher requirements, evaluation of the programs, access to technology, and funding. Since this policy was enacted, Tennessee has revised portions of it in keeping up with new technology and federal mandates (tn.gov, 2016). An example of select criterion is as follows: "Criterion 5.2: Professional development includes training in online environments. The policy required teachers and facilitators receive training or technology-delivered instructions dealing with course organization, classroom management, technical aspects, monitoring of student testing, and other student services" (Beagle et.al, 2011, p.95).

<div align="center">Current State of Online Education</div>

To illustrate the ever changing views and perceptions in online education validity, Russell (2001) reviewed over 355 studies on distance education and concluded that online learning was just as effective as classroom learning. Diverse research, which often were contradictory studies by other researchers, Anstine and Skidmore (2005) and Kan and Cheung, (2007), concluded that students in traditional classes have better performance than those in online courses. Driscoll (2000) found consistently that the learning in online programs was superior to traditional classrooms.

According to Koenig (2011) the online environment provides for students and faculty a safe, nonthreatening space that is free of violence, drugs, and alcohol. Prensky (2001), stated

most net generation students have always been in a world with computers, the Internet, highly interactive video games, and cell phones that created an automatic comfort level found among the current generation students. Also, instant messaging and electronic mail was the principal form of communication according to Koenig (2011). Many Net Generation children multitasked and used many different methods at the same time. Therefore, Koenig posited that these students may be bored with traditional school settings. Many students chose online high school alternatives for flexibility in hours and curriculum.

Salman Khan, founder of the not for profit educational organization Kahn Academy, has used a concept of providing videos for the general public. The concept of flipping a classroom stems from his innovative approach of uploading videos to YouTube (Evans, 2011). He currently has more than 2,400 videos available for download. (www.khanacademy.org). Online education, according to Dalessio (2012), exposed students to new models of learning that prepared them for future employment. Interpersonal relationship, problem solving abilities, and good communication were stated as skills necessary for employment in a global society (Watson et al., 2009).

According to Inan and Lowther (2010) the use of technology in schools could be grouped into three broad categories; technology for instructional preparation, delivery, and learning tool. Instructional preparation included communication and collaboration with peers, preparing teaching materials and lesson plans, and locating digital resources. Technology as a learning tool encompasses the use of software applications both online and downloaded on a computer.

A study by the U.S. Department of Education (2010) suggested that students who took all or part of their instruction online performed better on average than those who took the same course face-to-face. In the recent National Education Technology Plan (NETP) teacher education

programs have been asked to increase their emphasis on preparing future teachers for online teaching and learning by using new approaches. It was suggested that the higher education community embrace this new form of teaching.

The best achievement was found in blended courses that combined the elements of online learning with face-to-face instruction (Rose & Plants, 2010). The National Technology Plan stated specific benefits for students from online learning included provide personalized learning and higher engagement, connections created to current content and related activities, support a broad learning community, student learning time extended, student learning and assessment connections, professional development opportunities for teachers, and more extensive data about learning and understanding (U.S. Department of Education, 2010).

Rice and Dawley (2007) shared The NETP published plan that proposed in (2004) seven objectives to assist schools in implementing systematic change to online learning that this author believes are still applicable today. These objectives are access to online learning for every student, teacher training provided for every online teacher, online learning options to provide options to meet any current federal laws required for highly qualified teachers, online learning opportunities funded in a creative way, and accreditation standards for online learning that are in-line with those standards required for course credit.

In a meta-analysis based on 135 qualifying studies and using learning outcome data from over 20,800 participating students, a statistically significant number emerged that indicated distance education not only was comparable to traditional instruction but could possibly outperform traditional instruction (Shachar & Neumann, 2010).

Choosing Online High School Education

There are many different reasons that high school students choose distance education (Watson etal., 2009). According to Roblyer (2006), students turn to virtual schools when their own school lacks the resources to offer the courses they want or need. Sometimes they choose virtual school options when physical handicaps or disciplinary problems prevent them from attending a face-to-face classroom.

According to Shelton and Saltsman (2005) in 1990 only 15% of U.S. households owned a computer. By 2008 there were 78.7% of households with a computer. In 2010 more than 80% of households had a computer and 82% of adults had a mobile device. Many districts regarded online education as a money saving venture (Journell, 2012). Going beyond the district desires, high school students chose online coursework as a way for students who have difficulty with traditional schools to complete their credits and graduate. Some students took advanced placement courses and other electives that were not offered at their traditional school setting due to their own demographics of inner city or rural settings (Journell, 2012). Homebound students, students who work, and those with scheduling issues also benefited from online high school courses. According to Journell (2012) students who are bullied for a variety of reasons often chose online education. Within an asynchronous course design students have the ability to learn at their own pace, take breaks, go back and reread or rewatch portions of the lectures, and work at the times most conducive to their own learning (York, 2008).

According to Roblyer to enjoy a successful experience in distance education the student must have intrinsic motivation. The distant education student must be able to create a personal schedule for the workload, turn work in when due, and navigate in an environment where the teacher is not physically present (Jun, 2005). Roblyer (2006) included The Southern Regional

Educational Board framework for virtual schools that judged school and program quality and used four areas; basic assumptions that teachers are web-trained, curriculum and instruction where the content of quality programs is designed and communicated through critical thinking related to the course objectives, management encompassing technical assistance and secure environment, student monitoring during testing.

During discussions between online high school leaders in a study by Roblyer (2006), five common strategies for success emerged; prepare students for success, prepare teachers for success, use interactive flexible course design, monitor and support teachers, and monitor and support students. The percent of academic leaders that rated learning outcomes as the same or superior from online schools versus brick-and-mortar schools grew from 57% in 2003 to 77% in 2012 (Allen & Seaman, 2014).

Issues in High School Online Education

In some online programs there was a flexible aspect for curriculum delivery. Some systems have adopted using open licensing that removed the copyright restrictions from curricula materials and therefore allowed the teacher to create with a more personalized approach (Tonks et al., 2013). In order for this type of curriculum delivery to work, awareness of how to use open licensing, logistical concerns of cataloguing materials, and motivation of the teachers to share their resources must be used. The open resources type of curriculum had four copyright permissions that were revise, remix, reuse, and redistribute.

According to Liu and Cavanaugh (2011) one issue specific for online students was log-in time in the specific platform that the school used. Students went on the computer, logged into the assignments, and then did their assignments offline before turning them in later. Students would return to reread the assignment, reanalyze the assignment, log in to ask for help with the

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assignment. Number of log-in times correlated with student achievement on assignments (Dickenson, 2005; Diez, 2002). Teacher comments and feedback on student assignments influence student academic achievement in online learning (Liu & Cavanaugh, 2011). Student feedback connected the student to the teacher, and provided deeper understanding of the curriculum (Anderson & Kskis, 2007). Teacher comments have been identified as one of the benchmarks in quality online learning programs (Phipps & Merisotis, 2000). Another area unique to online learning was social interaction with peers. Tunison and Noonan (2001) stated the bulletin board concept provided students with a way to help each other and interact in a social manner. Email was the primary means of communication with the teacher but in places like a bulletin board or student Facebook page this was considered student domain. The students felt empowered to help each other and have a safe space to share in a social manner.

Student Satisfaction Related to Delivery Method

According to Kuo, Walker, Belland, and Schroder (2013) and Stojic, Dobrijevic, Stanisic and Stanic (2014) student satisfaction was an important indicator of the quality of learning experiences. The nature of online learning promoted greater responsibility on the part of the student (Moore & Kearsley, 1996). Satisfaction lead to lower dropout rates, higher motivation, persistence of learning, and taking additional online courses (Kuo et al., 2013). Moore and Kearsley (1996) stated that interaction between the teacher and other students continued to be one of the most important parts of online learning due to the isolation of the student. Another area that was a predictor of student satisfaction was internet self-efficacy. If the student felt more comfortable with computer skills due to the nature of internet delivery systems for the coursework then the student was likely to feel more satisfied with the course overall (Kuo et al., 2013; Tseng & Kuo, 2014). Kuo et al. also found that most of the studies indicated that the

ability to self-monitor and evaluate online at different learning stages was positively related to both student performance and achievement; however, there was limited research pertaining to the connection between self-regulation and satisfaction. Kuo et al. continued to state, "Learner-instructor interaction, learner-content interaction, and internet self-efficacy were significant predictors of student satisfaction in fully online learning settings, while learner-learner interaction and self-regulated learning did not predict student satisfaction." (p. 33)

Another area that contributed to student satisfaction was the quality of the teaching (Stojic et al., 2014). When students rated their teachers higher, it was a good indicator of their teachers' effectiveness. Teachers of elective courses were consistently rated higher than teachers of compulsory courses. Teaching factors that affected their ratings included student interaction, teacher feedback and communication (Hodges & Cowan, 2012; Kuo et al. 2013). Students appreciated more the quality and suitability than the quantity of the learning materials in online courses (Stojic et al., 2014). According to Valtonen, Kukkonen, Dillon, and Vaisanen (2009) a study conducted in Finland reinforced that online learning beliefs, self-efficacy, and information communication technology were why students chose online courses. As related by Prensky (2001):

> "Students today are socialized to work and act with technology. The student is a digital native and the teacher a digital immigrant. Digital natives have their own culture and language which is foreign to the digital immigrants therefore they are more comfortable in this medium". (Valtonen et al., 2009, p.743)

Hodges and Cowan (2012) conducted a study on student satisfaction associated with both students' perceptions of instructor presence and students' perception of the effectiveness of online courses. The findings of the study (Hodges & Cowan, 2012) included areas that were pertinent for course designers. Participants in online courses required timely responses of their

work, clear instructions in the modules, and instructors who not only designed good courses but who were available to them.

Ellefson (2015) reviewed literature pertaining to student perceptions and a chart of student levels of satisfaction levels was presented. The study was originally presented by Noel-Levitz (2014) and identified prior to learning several practices for the students to facilitate student satisfaction including making sure instructional materials were appropriate for the program content, assignments clearly defined in the syllabus, and faculty provide timely feedback to the students. Other items of importance according to Noel-Levitz (2014) were creating clear assessment and evaluation procedures, registration for the course in a convenient format, and school responds when information is requested.

Evidence from the research was consistent between what constituted a high-quality online course program between postsecondary programs and K-12 programs (Roblyer, 2006).

Negative Perceptions of High School Online Learning

According to Chen and Jones (2007), Hubbard (2012), Roe, (2011), and Valtonen et al. (2009) there were factors that contributed to negative perceptions in online learning. Some opponents, including faculty members, to online education felt the introduction of 100% online high school diluted the existing brick-and-mortar schools and their programs. These have been summarized by research conducted in 2003 by Crow, Cheek, and Hartman included a major difficulty of teachers in online courses that reported the overseeing of courses to be time consuming. Technology issues and lack of communication were areas that were cited about student negative perceptions in online programs (Hubbard, 2012; Roe, 2011). Apparently, some programs experienced high dropout rates due to the negative perceptions in early online programs (Chen & Jones, 2007; Hubbard, 2012). Although, based on Chen and Jones's research, there were no significant differences between online and traditional delivery methods that lead

this author to conclude that many of the negative comments about online education were simply perceptions not based in factual research.

In an article about technological barriers to success, Roe (2011) listed internet speed as a hurdle that many students and teachers faced when trying to participate in online coursework. This can be categorized as an important negative in online course delivery. Often, poor rural locations had significantly less access to appropriate internet speed, which impeded the ability for online education.

<u>Teaching Online High School</u>

Although there are many research studies that examined online courses at the college level, there are few research based studies that have examined learning specifically in high school (Conceicao & Drummond, 2005). According to Daum and Buschner (2012) students who took online courses in high school did not necessarily seek out online courses in college. Students at the secondary level were less likely to be independent than college students (Murphy & Rodriguez-Manzanares, 2009; Barbour, 2011); therefore, teachers must be aware that online delivery and methodology must be adjusted for this subset of online learners.

<u>Approaches to Online Teaching Facilitating Positive Perceptions</u>

This author found several different and sometimes contradictory approaches deemed suitable for teaching online. Holmberg suggested that the distance education teacher should encourage the students' deep learning or meaningful learning as an individual activity. Meaningful learning as opposed to rote learning was at the center of interest for online teachers (Kim & Branch, 2002). Some believed that the instructor's removal from the time element motivated students and promoted relevant learning and guided learners in their pursuit of knowledge (Darabi, Sikorski, & Harvey, 2006). Further, some teacher focused approaches were intended to transmit facts and skills to the student but are not concerned with the relationship fostered between the teachers and assumed that the student does not need to be active in the teaching-learning process (Darabi et al., 2006). Rogers (2000) suggested that most classrooms

offer a teacher centered classroom that should be changed to a more learner centered environment that is necessary for success in the online delivery method.

According to Northhouse (2010) leader-member exchange theory centers on leaders and followers in a didactic relationship. Before the leader-member exchange theory, most researchers treated teaching as something leaders did for all of their followers. Many teachers felt comfortable using this type of leadership model in their classrooms; however, there must be modifications for an online setting and some believed this would be counterproductive in an online setting. This theory created a system where subordinates became part of two groups; in-group or out-group depending on how they worked with the teacher.

Holmberg (2005) offered four basic interactions between teachers and students in distance learning; support students' motivation with an encouraging teacher, applying knowledge and skills acquired as places for discussion with the teacher, students develop thinking with criticism offered from the teacher, assess student progress for adaptation of coursework.

Other theorists posited the need to create courses that were culturally relevant. The teacher must become familiar with the cultures of their students to show sensitivity and nonbias of stereotypical imagery or values (Davis, 2014). An example of cultural sensitivity could be seen when Chinese learners showed signs of being uneasy volunteering to lead a class discussion because of their cultural values.

Constructivist theorists incorporated learning as a process of putting together meaning. It also encompassed people making sense of their personal experience. (Merriam, Caffarella, & Baumgartner, 2007). By being aware of cultural issues, the teacher provided opportunities for the diverse learner to freely express themselves without fear of judgment (Davis, 2014). Cognitive theory was widely used in creating online pedagogy. This theory was made popular due to the processing of information element. Using this theory Ally (2004) posited course designers used a

cognitive structure that allowed the learner the information that is transferred into working memory.

Creativity can become a focus in creating contextual understanding in online coursework (Sull & Skora, 2014). This approach included going from working within what is already created to pushing beyond the existing pedagogy into something that is not yet defined (Sull & Skora, 2014). Sull and Skora posited that if done effectively the students became more engaged and were more interested in learning. This facilitated the student embracing the subject matter and a stronger student-teacher rapport would then be created.

Sense of Community (Sloan Foundation Studies). The Sloan Consortium described a quality framework for guiding excellence and sharing effective practices for teaching and learning online (Kapanjie, 2011). Those who were the most dedicated to pure asynchronous models realized that there was a need for a sense of community that must be present in order for the learning to succeed. Wegner (2006) defined communities of practice as, "groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly." (p. 2)

Things such as web conferencing, discussion board posting, and other interactive methods brought the students closer to a sense of community. With those technologies students and teachers had the capabilities to collaborate (often in real time) to manipulate documents, research different subjects on the web, share or prepare presentations in programs such as PowerPoint, and anything the students alongside the teacher can accomplish in a traditional classroom setting (Kapanjie, 2011).

Learner-Centered Approach. A learner-centered approach to distance learning was an important component to most successful online programs both at the high school and higher education populations. The instructor acted as a cofacilitator, coach, and tutor in the learning

process. According to Gibson-Harman, Rodriguez, and Grant-Haworth (2002) the goal was not the actual transfer of information but instead guiding the learner in their pursuit of knowledge. In a study done by Darabi et al. (2006), the researchers examined instructor competencies at the Naval Education and Training Command distance education program. In this study, the primary focus was on interactions with the students and the content of the course. Use of technology was not seen as an important factor and was just a means to provide the students with content and learner-centered lessons (Darabi et al., 2006).

Darabi et al. (2006), stated that interaction was a primary component of online learning. Creating an environment where student-centered curriculum was combined with teacher interaction allowed students to achieve their objectives.

Transactional Distance Approach. Transactional distance is the perceived distance between the learner and teacher (Moore & Kearsley, 1996). This distance can affect the instruction and also the interaction between the learner and the teacher. Most importantly, the interaction can be negatively affected by the perceived distance. Moore and Kearsley (1996) further defined transactional distance as: "the gap of understanding and communication between the teachers and learners caused by geographic distance that must be bridged through distinctive procedures in instructional design and the facilitation of interaction." (p. 223)

Bobak, Cassarino, and Findley (2004) stated that there were two different categories that define Moore's transactional distance; dialog and structure. Dialog was explained as the messaging and response between the learner and teacher. Structure was comprised of the parts in a course, or elements, such as learning objectives, assignments, assessments, and the schedule. These could be designed to be rigid or flexible. However, the structure must meet the learners' needs to be effective. The size of the learning group, language, and medium were three

environmental factors that the designer considered when pulling together the elements of instruction.

When the designer or teacher of the course understands transactional distance then they could design the course to meet the needs which would create less distance between the teacher and learner. One method of creating to motivate self-regulated learners was called ARCS model of motivational design (Driscoll, 2000). According to Driscoll the following parts comprised the ARCS model; sustain attention, enhance relevance, build confidence, and generate satisfaction.

Training and Techniques that Affect Teacher Perceptions

According to Rice and Dawley (2007), 62% of online teachers did not receive adequate training for an online environment. In the research conducted by Barbour et al., (2009) they found three areas of teacher disconnection in online delivery; the disconnection of the teachers from their students, from the teachers' perceptions of what they think a teacher is, and from their peers. Teachers felt that it was more difficult to teach online because they could not readily see the student cues of understanding that they had become accustomed to in the in-classroom experience. Many overcame this disconnection by establishing frequent interaction with the students. Conversely, many other studies recommend that the online teacher fade into the background once the course had begun which allowed the students to develop dialogue and use their own voices (Siedlaczek, 2004). Leary, Lee, and Recker (2014) theorized that there were areas that supported teachers in how to use new online models by reflecting on specific moments with peers of their own teaching, engaging in assessment conversations, participating in online professional development, and finding distributed networks of professional peers that have already prepared lesson plans.

Teaching techniques and strategies to overcome difficulties in student-teacher interaction could occur by investigating the differences between intrinsic and extrinsic areas that teachers could use in their course design to promote motivation of their students (Murphy, 2005). Some teachers in the literature reported that they felt primarily as graders when working in an

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asynchronous environment and missed the physical aspect standing-up in front of a classroom. When the teacher was able to design the course curriculum the teacher felt more invested in the role of teacher. According to Murphy learning how to teach in a multimedia way must occur in any online delivery method so students can relate in a more interactive way and stay motivated in their coursework.

Kennedy and Archambault (2012) researched models of field experience that helped prepare preservice teacher for K-12 online learning environments. They developed a web-based questionnaire designed for teacher education program personnel including faculty and staff. According to their study results only 1.3% of teacher education programs address the need to prepare educators for settings other than the traditional classroom. Further, half of the surveyed teacher education programs thought that they should offer field experiences in online school environments. Only 13% of the teacher education programs had started planning an addition of this type of experience for their preservice teachers.

A typical classroom teacher saw student cues such as body language and facial expression in communication. In the virtual classroom these cues were not present and through web-tools teachers ascertained the same student cues (Watson et al., 2009). According to Kennedy and Archambault (2012) preservice teachers learned many different aspects of online pedagogy, instructional design, and online theory to have a successful online classroom. Some programs were hesitant to incorporate this type of preservice teaching because it is possible most teachers would not be in an online environment. This author believes with the incorporation of hybrid online models and other part-time online coursework preservice teachers must be exposed to this type of classroom in order to succeed in the current reality of the educational environment. Many current programs offer mentor programs for new teachers in traditional schools. According to Hodges and Cowan (2012) the primary role of the mentor in the beginning stages was to model for the teacher candidates. Some educators found that communities of practices (CoPs) were important for teachers in learning from their peers both pedagogical knowledge and teaching skills (Tseng & Kuo, 2014).

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Kennedy and Archambault (2012) included items from the National Standards for Quality Online Teaching Similarities and Differences in Online and Face-to-face Instruction:

- Teacher meets the professional teaching standards established by a state-licensing agency or the teacher has academic credentials in the field in which he or she is teaching. Typically required in both environments.

- Teacher has the prerequisite technology skills to teach online. May be required for both environments; however, these skills are vital to the success of an online classroom.

- Teacher plans, designs, and incorporates strategies to encourage active learning, interaction, participation, and collaboration in the online environment. May occur in both environments, however, occurs differently in each learning environment. Interaction and collaboration may occur asynchronously (not in real time) or synchronously (in real time) using web-conferencing tools, such as Skype or Google Chat, or through chat sessions in learning management systems.

- Teacher provides online leadership in a manner that promotes student success through regular feedback, prompt response, and clear expectations. Occurs in both environments; however, it is done virtually in the online environment. Face-to-face students typically "see" their teachers on a daily basis, whereas students in online learning environments may not. Regular, prompt, and clear feedback from the instructor is crucial to the success of online students.

- Teacher models, guides, and encourages legal, ethical, safe, and healthy behavior related to technology use. Occurs in both environments; however, online teachers deal with cyberbullying, flaming (heated discussion that is unhealthy), and other online etiquette (netiquette).

- Teacher has experienced online learning from the perspective of a student. Occurs in online environment. The rise of blended and hybrid learning will require more and more teachers to teach online and have experience as an online student.

- Teacher understands and is responsive to students with special needs in the online classroom. This is specific to online instructors. Instructors need to be aware of assistive technologies, modifications, and related services in the online environment to ensure they are supporting students with special needs.

- Teacher demonstrates competencies in creating and implementing assessments in online learning environments in ways that assure validity and reliability of instruments and procedures. Typically required in both environments.

- Teacher develops and delivers assessments, projects, and assignments that meet standards-based learning goals and assesses learning progress by measuring student achievement of learning goals. Typically required in both environments.

- Teacher demonstrates competencies in using data and findings from assessments and other data sources to modify instructional methods and content and to guide student learning. Similar to face-to-face classroom. Virtual schools typically have automated data collection that teachers can use to modify their instructional practice. Knowing how to manage and use this data in a meaningful way is essential in the online classroom.

- Teacher demonstrates frequent and effective strategies that enable both teacher and students to complete self- and preassessments. Typically required in both environments.

- Teacher collaborates with colleagues. Typically required in both environments; however, this may be accomplished online using either web-conferencing or chat.

- Teacher arranges media and content to help students and teachers transfer knowledge most effectively in the online environment. Specific to online settings. Teachers need background in online pedagogy and instructional design to ensure effective creation and sequencing of materials. (p. 197)

Perceptions of Faculty and Satisfaction

Akins, Check, and Riley (2004) shared with the reader impressions of one educator about preconceived perceptions in online teaching. The educator voiced doubts about the success of online learning if the students could not see each other on a regular basis. However, the educators' fears were gone within the first year of teaching in the online format. The educator found communication with students happened more frequently and was much more detailed than in a traditional classroom. The educator found that online teaching provided the students with resources that did not often occur in a traditional classroom such as referencing previous materials and discussions (Akins et al., 2004).

Seaman (2009) investigated online faculty and the possible correlation of age in the willingness to embrace this type of teaching. Seaman indicated that there was little evidence in the belief that younger teachers were different from senior faculty in this area. Inan and Lowther (2010) examined the effects of teachers' individual characteristics and environmental factors on teachers' technology integration. Their study findings suggested that teachers' readiness had the highest total effect on technology integration. Teachers' demographic characteristics in areas that included years of teaching and age negatively affected their computer proficiency. As age and years of experience increased, computer proficiency decreased. Teachers' computer proficiency positively influenced their technology integration. School-level factors were availability of computers, technical support, and overall support that positively influenced teachers' beliefs and readiness. The researchers concluded that it would be likely that the schools with higher overall and technical support provided better professional development and training opportunities for the teacher to increase computer proficiency (Ellefson, 2015; Inan & Lowther, 2010). In several

studies of the effectiveness of online instruction faculty reported online education to be effective relative to student engagement and active learning (Ellefson, 2015; Wingard, 2004). One of the most important factors that influenced student satisfaction was the quality of teaching (Stojic et al., 2014). According to Stojic et al. students appreciated more the quality and suitability than the quantity of materials given to them in an online course.

Journell (2012) interviewed an educator and found a disparity in the skill set of teaching online. The educator related that her administration thought it would be no problem for her to transfer her teaching skills for teaching online. According to Journell instructors are often asked to teach online because the administration has deemed them exceptional classroom teachers or really great using technology which does not automatically translate into an effective online teacher.

There were other studies that have showed teaching online requires a different pedagogy and skill set (Featherston, 2001; Oliver, 2002). According to the NEA from a study conducted in 2000, 75% of teachers found online education to be positive. 93.6% showed willingness to continue teaching online courses. In this shift of pedagogy educators were required to take on roles that encompass mentoring, coordination and facilitators of learning rather than conveyors of information (Boiling, Hough, Krinsky, Saleem, & Stevens, 2012). Teachers provided students with curriculum that challenged their higher order cognitive skills (Gillespie, 1998). Also, Desai, Hart, and Richards (2009) contended, for online courses to be successful they needed to have high levels of interaction between the teacher and student. Without the interaction students experienced a sense of disconnect and described their online experience as being less enjoyable and less helpful than those imparted with high interaction.

Clark and Mayer (2003), in their book that offered principles for effective online learning, discussed the use of conversational writing style versus formal writing to personalize

information. Writing in this way caused the students to feel as if they were in a familiar conversation. Kerr (2010) created a list of best practices for teaching in online high school. The list included some of the same things found in traditional classrooms; however, providing timely written feedback, graphic organizers used to demonstrate understanding, modeling discussion answers, written rubrics, student introductions at the beginning of the course, social networking for collaboration and ensuring that students are aware of the technology requirements needed for completing coursework were shown to be more important in an online classroom.

Not all online K-12 teachers were responsible for all of the indicators of teacher engagement. Roles and responsibilities of the online teacher varied depending on the grade level they taught and the model of online learning they followed. For example, Roblyer's (2006) model for virtual school programs proposed three complementary roles; teachers who monitored and assessed learning, on-site facilitators who provided face-to face support, and instructional designers who created course content and learning activities. Unique to the K-12 environment, personalized instruction was seen as paramount in dealing with diversity in levels of cognitive development (Cavanaugh et al., 2004).

The NEA (National Education Association) board of directors provided online teaching standards that emphasized the need for professional development that was specific to online teaching. The NEA stated that the online teacher should create an environment that imparts high standards while keeping it student-centered. The teacher must be able to work with little supervision. Finally, the teacher should write in a voice that can be heard by their online students often incorporating their sense of humor (Kennedy, 2010).

Holmberg (2005), argued that distance education should revolve around a learner-centered system with teaching focused on facilitating learning. As a result of this focus Holmberg (1995) created his theory for distance teaching:

"Distance teaching will support student motivation, promote learning pleasure and make study relevant to the individual learner and his/her needs, creating feelings of rapport between the learner and the distance education institution, facilitating access to course content, engaging the learner in activities, discussions and decisions and generally catering for helpful real and simulated communication to and from the learner." (p. 104)

According to research conducted by Van Den Berghe et al. (2014) scores for autonomous motivation were related positively to experiences of need satisfaction at work, which was consistent with the idea that satisfaction provides the catalyst necessary to do the job out of interest and enjoyment.

Teacher-peer interaction was different in an online environment. Because the teacher was not in a traditional classroom with peers, down the hall, they felt isolated. Using email, faculty gatherings, and in-person training aided in feelings of connectedness between peers (Barbour et al, 2013.; Murphy & Rodriguez-Manzanares, 2009). As the teachers pointed out in a study conducted by Siedlaczek (2004), one of the key components was to incorporate as many collaborative activities in the course as possible, which facilitated a community of learners. Other areas that online teachers focused on included course content, assessment, and interactivity between student and teacher. Some educators revisited the instructional models that they have been using for many years to properly teach online.

Rosenthal (2010) shared several areas of reinvention that needed to occur when creating an online classroom. Using a variety of texts and media streamed video interactions, discussion board entries, and revised accountability measures were several areas that were changed. Phillips (2013) stated this is not a traditional classroom where we see student cues. Posting online

between the teacher and student allowed the teacher to interact in the same way as if the teacher was involved in a face-to-face scenario. According to Phillips (2013) incorporating instructional design helped the instructor create the space in which the course would function including; content, timing, assessment, assignments, and areas for interaction. Unfortunately, many institutions only used one generic template throughout the courses that was adjusted for content only. Using facilitation instead can let the instructor create a highly individualized course where the instructional design is a proactive part of the learning activity.

According to Abraham (2014) there were four areas of importance that must be in place for a functioning online learning environment; reliability, durability, integrity, and serviceability. Motivating factors for faculty engagement in the online environment included flexibility in the work schedule and working from home, using new pedagogy, familiarity with different content management format platforms, and student motivation (Greene, Alejandro, & Brown, 2009).

As Hiltz, Shea, and Kim (2007) pointed out, there can be demotivating factors in online teaching that included demands that the teacher be available and responsive when students send emails, more time spent writing to students, which takes longer than an oral response, lack of technical and administrative support, lack of recognition from peers and administrators, and dealing with students' transition to online learning. Faculty members' professional identities could be challenged when asked to teach online classes due to the changes in the work atmosphere, the student body, and the curriculum adjustments (Abraham, 2014).

There were factors that could enhance the success in online learning environments. According to Siragusa and Dixon (2006) some of the factors include; the faculty members' perception of their students learning using the online environment, their skill with technology,

and faculty members as stakeholders in the decision making process for development of online courses.

<center>Art Education</center>

Art education began in conjunction with all other types of education and although fraught with skepticism about its inclusion over the years continues to thrive in many societies. This author has been teaching visual art for over 25 years and has seen many changes in pedagogy and public perception. One does not need to travel far to see the power of the arts to change or challenge the thinking and action of the general public (Daichendt, 2010; Rabkin & Hedberg, 2011). According to Plato, "Arts of the right sort could serve as an indispensable resource in the child's development" (Efland, 1990, p.14). Glenn (1992) speculated that the reason the United States should educate children in the arts is if we did not have arts education the next generation would lack the basic knowledge, skills, and values they would need to lead fully human lives. Art and artistic behaviors show up everywhere across the globe and through recorded human history. These artistic behaviors happen across cultures that suggest they derived from natural sources and are part of our unique human makeup (Dutton, 2009).

History of Art Education

Dutton (2009), described eloquently why art is an important component in our lives:

"The artistic masterpieces of our age may seem a long way from the first daubs of red ocher on a human face or the first musical notes that echoed through ancient caves. Yet what our ancestors began spread across the globe, in art high and low. We remain like our investors in admitting high skill and virtuosity we find stylish personal expression arresting, as well as the sheer wonder of seeing the creation of something new. Art's imaginary worlds are still vivid in the theater of the mind, saturated with the most affecting emotions, the focus of rapt attention, offering intellectual challenges that give pleasure in being mastered. And over all this, we still share with our ancestors a feeling of recognition and communion with other human beings through the medium of art." (p. 243)

On May 16, 1870, the Massachusetts legislature enacted the first law in the nation making the teaching of drawing compulsory (Efland, p. 99). In the early 1900s art education consisted of teaching drawing techniques. Drawing taught as a form of nature study was popular

which replaced drawing emphasis on geometry. Arthur Wesley Dow is credited with the introduction of the teaching of art through drawing. Dow spent 5 years studying in French art schools. Because science was considered very important during this time period, art had moved toward a more formal subject to survive. The art curriculum with the best chances of acceptance and survival was one that could demonstrate a structure organized in a scientific way. Art, like chemistry, was shown to have elements and principles which are still taught across the country in art classrooms today.

During the 1920s another shift occurred that encouraged creative self-expression. The appreciation of art and the wonders of nature were sufficient to study and teach art. During this time period faith and morals were tied into the study of art (Efland, 1990). Copying artworks was replaced with a more progressive creativity (Eisner & Day, 2004). The next change occurred in conjunction with the Great Depression and World War II. Art was used in daily living and then in the life of the community, the home, and the workplace. Efland discussed the war in the following terms, the war represented a special challenge to art educators, who had to demonstrate that art was ideologically committed to the struggle to preserve freedom and democracy, the very freedom that permitted self-expression. Finally, the Cold War started the teaching of art as a discipline. Eisner stated that instruction was based on inquires of artists, art critics, art historians, and philosophers of art.

Historically, there were several gifted art teachers who contributed to the field of art education; Franz Cizek in Vienna, Marion Richardson in England, Victor D'Amico and Viktor Lowenfeld in the United States. Their pedagogies were based on the premise that children's art was inherently valuable all by itself. To understand the history of 20th century art education in the United States, Efland (1990) separated major areas of art instruction as Reconstructivist (art

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education is about critical awareness rather than appreciation or expression), Scientific Rationalist (has roots in science and asserts that all philosophical problems can be solved through scientific method), and Expressionists (the idea that self-expression was valued). These categories were designed to organize the applications and theories in the sometimes diverse artistic rationales (Daichendt, 2010).

Becoming an art teacher started with the Normal School in the 19th century, which was important for the art teacher because it was a place where art teachers could learn how to actually teach art (Efland, 1990). Before this happened art teachers were educated as artists or craftsmen where there was no emphasis on the teaching process (Daichendt, 2010). In the normal school both in the United States and England the arts were divided into fine arts and applied arts. Each discipline required different training.

In America correspondence schools were the first type of distance learning. Ticknor (1897) created a correspondence school called "The Society to Encourage Studies at Home" that included art courses. The art department began with five students. According to Ticknor by 1897 there were seventy volumes of photographs and engravings, illustrating different periods of painting, sculpture, and architecture in the school. The school was very popular and offered courses in Ancient Art, Early Christian Art, Renaissance, and a Traveling Course that prepared the students for overseas travel. The student population was mostly female. According to Funk (2009) the "Federal School" was also a correspondence art school in Minneapolis, Minnesota, in the early 20th century. Since the beginnings of these types of distance education programs, art education has evolved where technology is often used as the delivery method. This author received her Master of Art Education degree in one such asynchronous online program.

In 1966 Vincent Lanier was involved in a study and looked at the potential of photographic and electronic media. He argued, clearly ahead of his time, that the younger generation and their concepts of reality were based upon images generated by photography and electronic media, cinema, and television compared to their parents. He argued that the art teacher needed to become more familiar with modern technology (Efland, 1990).

Effective Art Education

Black and Browning (2011) posited that technology does not stifle creativity or students' imagination process. Art educators were able to provide students with the teaching of traditional art by using a multi-modal approach. According to Hetland, Veenema, and Sheridan, (2007) there are eight cognitive and attitudinal dispositions within a serious art program. The program must facilitate development of craft by learning to use tools, engage through problems with focus, see what can't be observed, express ideas through art, be critical of one's work, stretch themselves artistically, and understand art history in the context of the art world.

Black and Browning (2011) stated that the world was changing and today's students continued to immerse themselves in the latest technology. Art educators have begun to adapt to these realities and incorporated the new technologies into their teaching processes. Art courses using technology according to Delacruz (2009) work well together. In using these new technologies, the art educator is able to make connections with an increasingly globalized and competitive work force (Diehl, 2013). Other art educators countered the idea that technology should be used to teach art. They believed hands on activities, material practice, art demonstrations, and face-to-face art discussion already encompassed modern skills and should not be changed at all. Delacruz (2009) contended:

"The art room should be a place for a kind of learning about the far reaches of the human experience, in a way that is compelling, complex and fluid in nature, and delightfully self-contradictory. Computers have the potential to facilitate this kind of learning environment, but so does a robust conversation about art, face-to-face" (p. 16).

Roland, (2010) reminded that as more art teachers get comfortable with new technology they will find what is vital to their own art program. To illustrate the differences Diehl (2013) listed the differences between traditional and technology-based art programs. Traditional pedagogy included looking at artworks and visuals, bringing together collections of art prints, art demonstrations at a table, paper based assessment, painting on paper or canvas, hanging artwork up on a wall, in-person art discussions. In a technology based approach to art teaching the teacher may provide artworks to view digitally or online, assemble artwork in a digital format, document cameras for demonstration, digital photography, digital painting software, digital art shows, and discussions about art held online.

Bellissario and Donovan (2012) indicated integration stimulated deep learning, created increased student engagement, and cultivated students' investment in learning. Bellissario and Donovan shared that arts integration provided hands on experiential learning. Art that was included in the classroom allowed creative instruction for deeper learning and enabled the teacher to provide differentiated learning options. The arts allowed for cultural differences in the learning environment. Integrating the arts renewed teacher commitment and helped to avoid teacher burnout.

Stevenson and Deasy (2005) found that arts education created what they called a "Third Space" which was the space between a work of art (the first space) and a viewer (the second space) in which meaning was created in between by their action (the third space). In this third space the arts provided a safe space where students could take risks and explore solutions, encouraged creative thinking, helped students in developing ownership of the creative process, increased student self-efficacy, increased student self-worth, let the students see connections with learning and content, helped teachers to construct new knowledge in relation to what they already had experienced, increased satisfaction in teaching, and allowed schools to foster a place of interdependence, tolerance, and empathy.

Studying art is empowering even if the student does not become a professional artist. According to Kohl and Oppenheim (2012) art courses developed imaginative problem-solving skills and an understanding of planning and actual execution of creative work. Creating art creates a state of mind that is disciplined and requires hard work. There is satisfaction in being able to use your mind and skills to produce an actual tangible finished product.

Current State of Art Education: Perceptions of Teachers and Stakeholders

A comparison report by the National Center for Education Statistics (NCES) reported high levels of visual arts and music instruction in both 1999-2000 and 2009-2010 school years (Parsad & Spiegelman, 2012). Unfortunately, those districts that had a high percentage of minority, low income, and students in need of academic improvement reported reduced arts instructional time. Key findings of the report showed in 2009-10 a higher percentage of elementary schools and high schools employed full-time art specialists than part-time art specialists or classroom teachers to teach both visual arts and music. From the 1999-2000 to the 2009-2010 school years, elementary schools increased their use of dedicated rooms with special equipment to teach visual arts and music (Parsad & Spiegelman, 2012).

Eisner and Day (2004) contended the current transformation of art education encompassed more than curriculum change along with teaching strategy shifts in the online classroom. There is a new level of theorizing about art that was tied to the lens of postmodern philosophies based on intercultural, transcultural, and visualizations (Eisner & Day, 2004).

This globalization in many school systems was altering the curricula to ensure that students were able to compete in this new type of society. The arts justified their presence most of the time as a supplemental or alternate way of teaching other subjects. Arts integration was often used with technology to introduce, upgrade, and augment learning not only in the arts but other subject areas (Mishook & Kornhaber, 2006). The arts reinvented itself through an online pathway that ensured their place as worthy in conjunction with what was deemed essential core content.

A study done in 2008 by Lake Research Partner working in collaboration with the Arts Education Partnership found public support was strong for the teaching of skills as imagination, creativity, and innovation. They found almost nine in ten voters, 89%, said that using the imagination is important for personal innovation and success in a global, knowledge based economy. Eighty-eight percent of respondents indicated that an education in and through the arts is essential to cultivate the imagination. Sixty-three percent strongly believed that building the imagination was as important as learning the basics in the classroom and that arts education helped substantiate imaginative learning and should be considered part of the basics.

Daniel Pink asserted that right-brained kind of thinking was needed in order to survive and flourish in the Conceptual Age. "IKids" were students who were technologically driven and who grew up learning how to read visual images. The arts help today's students discover divergent thinking and problem solving. In art classes students must be risk-takers because they do not find their answers in a textbook (Unrath & Mudd, 2011). The arts fostered the students' critical thinking through different modes and contexts. Buffington (2008) described the internet as Web 2.0 that worked well for art education because it offered artists', art teachers, and art students a new medium.

An analysis in 2012 by Rabkin and Hedberg confirmed that participation in art lessons and classes was the most significant predictor of arts participation later in life. According to Rabkin and Hedberg youth exposed to the arts were more likely to go to college, get good grades in college, and get a degree. They were more likely to do volunteer work, register to vote, and hold a full-time job, and they were less likely to require public assistance or food stamps.

<p align="center">Online Art Education</p>

Bryant (2010) theorized the computer was simply the most recent addition to an artist's tool chest of media necessary for a display of technical skill. In today's strongest art programs, teaching the art content and the art making allows the students to then use what they learned for artistic self-expression (Bryant, 2010). Bryant posited it was of upmost importance in any art education done with technology to facilitate intrinsic motivation in the students or the artmaking

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could become rote, purposeless, and the student would often cease artmaking completely. Strategies for artmaking when using technology should include creative problem solving. Learning the technical computer skills should not come at the expense of creativity (Black & Browning, 2011). Deihl (2013) argued that digital technology in art education does not inhibit creativity in the student but instead allowed and encouraged users to access their creative selves.

As reviewed by Krug (2004), the Milken Exchange on Education Technology in 1998 suggested seven dimensions for gauging the effectiveness of new technology in supporting learning through the visual arts. The dimensions included in Krug's (2004) review were learners, learning environments, professional competency, system capacity, community connections, technology capacity, and accountability.

Student and Teacher Perceptions of Online Art Education

A study conducted by Knowles and Kerman in 2007 showed online visual arts courses to have more intensity which included more required reading and coursework than the students expected. They also concluded that students received more information and learned more than they expected in an online delivery visual arts course. The students took more responsibility for learning and initiative to enter the online class and do the assignments (Knowles & Kerman, 2007). Also, in the Knowles and Kerman study online students felt that they interacted with the teacher adequately but missed interaction with other students.

Key factors that contributed to art teachers' reluctance at applying new technology to their teaching included software difficulties, increased stress, heavier teaching loads, time constraints, shortage of software, and lack of teacher support and training (Black & Browning, 2011; Delacruz, 2009). A study conducted in 2002 by Black (2009) included research concerning art educators' perceptions and approaches to working with technology tool as a means of both student communication and personal artistic expression determined that teachers' styles of teaching in digital art classrooms were dependent up on several determining factors. Teaching styles are shaped by the overall school philosophy. Black stated that the teachers were subject to

the conditions of their teaching environment, mandates of special programs within their schools, and resources available to the schools when formulating their teaching style.

Results of Diehl's (2013) study supported the hypothesis where greater access to computer technology correlated with increased technology integration and teachers having more favorable beliefs about technology usage in the art classroom. This supported the path of art education which mirrors the changes taking place in other areas of education and in society as a whole.

Virtual Art Classroom Methods that Affect Teacher Perceptions

As with any type of virtual classroom, the virtual art classroom has its own set of learning limits and pedagogical possibilities (Lai, 2002). The process of virtualization takes the constraint of space (classroom), time (class schedule), and the means of communication (face-to-face interaction) and turns then into a freedom of space, time, and communication that is limited in traditional locations (Levby, 1998). Lai (2002) added each of these tools had something to offer specifically to an art oriented class like an ethnic art appreciation course in art education. The online format is good for art oriented courses because students can have both a chatroom window and a window for displaying visuals open at the same time. In an asynchronous format discussion forums facilitated class interactions that worked very well for visual imagery (Lai, 2002).

Art students immersed in new technology often become creators of digital new media and social collaboration on a large scale (Black & Browning, 2011; Freedman, 1997). According to Duncum (1996) art educators cannot ignore the emerging modes of artistic literacy in the emerging digital age. It would be to the detriment of the students if this new path were ignored. Not embracing digital technologies in the classroom could create schisms between art educators who have been slow to adopt the new technologies. Resistance to digital technologies by the teacher does not prepare the current art student for promoting, integrating, and exhibiting digital creations.

When art teachers employ technology in their classrooms, they do not always foster the creative process (Black & Browning, 2011, Delacruz, 2009, Jackson, 1999). Many art teachers that find themselves teaching online are self-taught on the technology. According to Black and Browning (2011):

"…art teachers typically use established computer technology as teaching or presentation tools rather than facilitating students' creative production and thinking, collaborative learning, problem-solving and higher order learning…" (p. 48)

Black and Browning (2011) proposed that the 21st century art classroom does not need to impede creativity but instead can allow and encourage the student to access their innate creativity. In the digital arts creativity requires the student to move from the known to alternatives and appreciate the significance of the transformation from more traditional methods. Similar to traditional art methods, teachers can shape assignments that are open-ended and that encourage problem solving and student self-expression (Black & Browning, 2011). Black and Browning were concerned if teachers put the technology first and worried about it, students would end up completing mechanical assignments that did not creatively express the self. The creative individual should drive the technology in order to express creativity. After concluding their research Black and Browning recommended that technology play a secondary role in creative pedagogy to drive the art education curriculum. They also recommended that art teachers shape their own curricula for greater success.

Roland (2010) prepared guidelines for art teachers in using new technology. He believed online art educators should focus on outcomes and not on the tools. The art teacher should find ways to expand on ways to use the Internet (Twitter for sharing lesson ideas, Pinterest). Instead of using technology as an addition piece, the teacher should bring it into the arts curricula through PowerPoint, Photoshop, and drawing programs. Roland also suggested the teacher use

free, open-source software, Creative Commons licensing, and online tools. Traditional visual arts provided the foundation for digital arts.

<div align="center">Summary</div>

The arts have the ability to shift and adjust to small and large changes that ensure art practice, appreciation, and education will continue (Daichendt, 2010). The arts, which have traditionally been on the fringes of what is deemed important educational pedagogy, when paired with technology as a stand-alone curriculum or together with other subjects may become indispensable and gain renewed significance. For the arts to remain relevant and potentially flourish in the 21st century art educators and art policymakers need to embrace new trends and focus their efforts to allow the arts to become leaders in this new technological age. Training and professional development opportunities will allow art educators to learn the necessary skills to bring their classroom curricula of art history and art making into the online classroom.

One of this author's favorite sculptors, Louise Nevelson, referred to teaching art:

"I've taught and the first things I did when I taught art, was not to teach art. I taught the students to clean their minds, to take that mind and polish it daily, to throw out what they don't need and not to clutter it…Keep it open and keep it empty, so that when you see something, you see it totally" (Brown, 1998, p. 86).

This author suggests in order to be successful visual arts educators may need to clear their minds of preconceived ideas about what occurs in an online classroom and keep their minds open so they can see it totally.

CHAPTER 3

RESEARCH METHOD

The purpose of this quantitative study was to investigate 9-12 faculty perceptions of

online instruction compared to traditional face-to-face instruction regarding visual arts mentor,

delivery method, satisfaction, student learning, and curriculum.

Faculty members in two different areas of delivery method were included in this study;

traditional high school teachers and online high school teachers. The research questions, null

hypotheses, population, information included on the survey, data collection from the survey, and

data analyses are described in this chapter.

The research design for this study encompasses a nonexperimental quantitative design.

Gay, Mills, and Airasian (2009) define quantitative research as, "the collection and analysis of

numerical data to describe, explain, predict, or control phenomena of interest" (p. 7). According

to McMillan and Schumacher (2010) the nonexperimental research design is one that, "describes

phenomena and examines relationships between different phenomena without any direct

manipulation of conditions that are experienced" (p. 22).

This study uses the survey design to gather information relevant to answering the

research questions of the study. According to Gay et al. (2009) survey research determines and

reports the way things are as perceived by the population. This is done by collecting numerical

data that test's the hypothesis about the current status of the subject in the study. Survey research

can be collected through questionnaires, interviews, and observations. An online questionnaire

was used in order to collect data from the subjects. Through the analysis of the questionnaire

data, the researcher expected to obtain a better understanding of the population that consisted of

traditional and online high school teachers. This analysis is done by obtaining the responses from

the sample that includes high school teachers in the southeastern United States currently teaching in traditional or online high schools that were chosen for this study.

<div align="center">Research Questions and Null Hypotheses</div>

The research questions were designed to determine 9-12 faculty perceptions of online instruction compared to traditional face-to-face instruction regarding the dimensions of visual arts mentor, delivery method, satisfaction, student learning, and curriculum. The following research questions and null hypotheses, formalized from the purpose statement, were included in this study:

Research Question 1

Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) between faculty members who teach online and those who teach using traditional methods?

H_01_1: There is no significant difference in the mean scores on the visual arts survey for the mentor dimension of faculty members who teach online and those who teach using traditional methods.

H_01_2: There is no significant difference in the mean scores on the visual arts survey for the delivery method dimension between faculty members who teach online and those who teach using traditional methods.

H_01_3: There is no significant difference in the mean scores on the visual arts survey for the satisfaction dimension between faculty members who teach online and those who teach using traditional methods.

$H_0 1_4$: There is no significant difference in the mean scores on the visual arts survey for the student learning dimension between faculty members who teach online and those who teach using traditional methods.

$H_0 1_5$: There is no significant difference in the mean scores on the visual arts survey for the curriculum dimension between faculty members that teach online and those that teach using traditional methods.

Research Question 2

Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by age groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older)?

$H_0 2_1$: There is no significant difference in the mean scores of the visual arts survey on mentor dimension by age groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older).

$H_0 2_2$: There is no significant difference in the mean scores of the visual arts survey on delivery method dimension by age groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older).

$H_0 2_3$: There is no significant difference in the mean scores of the visual arts survey on satisfaction dimension by age groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older).

$H_0 2_4$: There is no significant difference in the mean scores of the visual arts survey on student learning dimension by age groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older).

H_02_5: There is no significant difference in the mean scores of the visual arts survey on curriculum dimension by age groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older).

Research Question 3

Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by gender for participating faculty members?

H_03_1: There is no significant difference in the mean scores of the visual arts survey on mentor dimension by gender for participating faculty members.

H_03_2: There is no significant difference in the mean scores of the visual arts survey on delivery method dimension by gender for participating faculty members.

H_03_3: There is no significant difference in the mean scores of the visual arts survey on satisfaction dimension by gender for participating faculty members.

H_03_4: There is no significant difference in the mean scores of the visual arts survey on student learning dimension by gender for participating faculty members.

H_03_5: There is no significant difference in the mean scores of the visual arts survey on curriculum dimension by gender for participating faculty members.

Research Question 4

Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more)?

H_04_1: There is no significant difference in the mean scores of the visual arts survey on mentor dimension by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more).

H_04_2 There is no significant difference in the mean scores of the visual arts survey on delivery method dimension by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more).

H_04_3: There is no significant difference in the mean scores of the visual arts survey on satisfaction dimension by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more).

H_04_4: There is no significant difference in the mean scores of the visual arts survey on student learning dimension by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more).

H_04_5: There is no significant difference in the mean scores of the visual arts survey on curriculum dimension by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more).

Research Question 5

Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by academic discipline area for participating faculty members (STEM, ELA, Fine Arts, Social Sciences)?

H_05_1: There is no significant difference in the mean scores of the visual arts survey on mentor dimension by academic discipline area for participating faculty members (STEM, ELA, Fine Arts, Social Sciences).

H_05_2: There is no significant difference in the mean scores of the visual arts survey on

delivery method dimension by academic discipline area for participating faculty members

(STEM, ELA, Fine Arts, Social Sciences).

H_05_3: There is no significant difference in the mean scores of the visual arts survey on

satisfaction dimension by academic discipline area for participating faculty members

(STEM, ELA, Fine Arts, Social Sciences).

H_05_4: There is no significant difference in the mean scores of the visual arts survey on

student learning dimension by academic discipline area for participating faculty members

(STEM, ELA, Fine Arts, Social Sciences).

H_05_5: There is no significant difference in the mean scores of the visual arts survey on

curriculum dimension by academic discipline area for participating faculty members

(STEM, ELA, Fine Arts, Social Sciences).

<u>Instrumentation</u>

The data for this study were collected from faculty members of traditional and online

high schools. The Likert-scale response survey contained 32 questions. Included in the survey

were six demographic questions. The demographic questions involved; age of participant, gender

of participant, number of years teaching, area of teaching discipline, grades teaching, and

delivery method of the classes taught. There were three "yes or no" type questions about faculty

mentors (questions 7-9). The survey included six response areas (questions 10-29); strongly

agree, agree, somewhat agree, somewhat disagree, disagree, and strongly disagree. There were

two ranking questions about teaching methods (questions 30 & 31) and question 32 was open

ended. Each survey was calculated to take under 15 minutes to complete. A copy of the survey

can be found in Appendix D.

<u>Survey Development</u>

The questions that were present in the survey were formulated from two different places. The researcher asked permission to use portions of a survey already written by Miriam Phillips in her 2013 ETSU dissertation. Dr. Phillips agreed to allow the use of any questions without restrictions. Only portions of demographic questions were used from Dr. Phillips survey. The review of relevant literature in online education guided the development of the items that were designed by this researcher.

<u>Validity</u>

Face and content validity were established by using a group of 20 educators to review the survey for appropriate items. Content validity was also evaluated by reviewing the literature in online and visual arts education. After data collection from the pilot group a factor analysis was run on SPSS to determine the number of dimensions for the survey and helped establish construct validity of the instrument.

<u>Reliability</u>

Internal consistency reliability is a measure of reliability used to evaluate the degree to which different items that examine the same idea produce similar results. Split-half reliability methodology was used to measure internal consistency reliability. In testing with the split-half reliability, the items of the survey are broken down by splitting the questions pertaining to probing the same area of knowledge in half to form two sets of items. The entire survey was administered to all participants, then the total score for each set was computed. Then, the split-half reliability was acquired by determining the correlation between the two total set scores. A Spearman-Brown correction was applied to estimate the reliability of the entire survey.

<center>Population</center>

The data for the study was collected from the faculty members of online and traditional high schools in the southeastern United States. The following states were chosen for the study; Florida, Georgia, North Carolina, Tennessee and Virginia. The Association of American Geographers defines the southeastern states in the United States as Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. The official Census Bureau uses the same states and also includes Arkansas and Louisiana. This researcher limited the sample to only southeastern states that have the top five data numbers in the categories of number of schools, number of students, and number of teachers according to the National Center of Educational Statistics state profiles section (NECS, 2016). The specific ranking data can be found in Appendix E.

All teachers from these states were eligible to participate if the administration from that school system allow the online survey link to be disseminated to the high school faculty members. After Institutional Review Board (IRB) approval, the researcher contacted the administrator of each school system to seek permission to include their high school teachers.

<center>Data Collection</center>

The Institutional Review Board (IRB) provided information regarding the procedure of obtaining permission. The researcher applied for and obtained permission from the IRB at the home institution (ETSU). The Initial IRB Approval letter can be found in Appendix A. An administrator letter was sent out to all school systems in Florida, Georgia, North Carolina, Tennessee, and Virginia. The school systems were given 3 weeks to reply. All school systems that approved research were included on an amendment submitted to the IRB before starting research. The amended IRB approval is found in Appendix B. The survey was distributed

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through a link to the administrators of each school system April 2016 that agreed through email correspondence to allow research to be conducted in their school system. The due date for survey completion from the high school teachers that choose to participate was May 16th, 2016. Participants were advised that all responses were confidential and the demographic information collected did not identify the participants in this study.

The survey (Appendix D) was piloted by 20 educators prior to the formal survey being sent to the participating high schools. This step provided data for a factor analysis to determine dimension validity. The pilot also helped to ensure readability and clarity of the survey.

<u>Data Analysis</u>

The data gathered from teachers at the participating high schools were organized into IBM-SPSS version 23.0 data file for further statistical analysis. The main types of statistical tests that were chosen to analyze the research question for this study are independent samples *t*-test and one-way Analysis of Variance (ANOVA). McMillan and Schumacher (2010) define a one-way Analysis of Variance as, "an inferential statistical procedure for determining the level of probability of rejecting the null hypothesis with two or more means" (p. 485). The independent samples *t*-test is a test that is used to "determine if there is a statistically significant difference in the dependent variable between two different population subjects" (p. 300). All of the data were analyzed at the .05 level of significance. The following illustrates the statistical tests by which the research questions were analyzed:

Research question 1 (H_01_1-H_01_5) was analyzed using a series of independent samples *t*-test to compare the mean scores on the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) between those who teach online and those who teach using traditional methods.

Research question 2 (H_02_1-H_02_5) was analyzed using one-way analyses of variance (ANOVA). The grouping variable comprised of the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) and the independent variable of six age group categories (20-28, 29-34, 35-42, 43-50, 51-59, 60+).

Research question 3 (H_03_1-H_03_5) was analyzed using a series of independent samples *t*-test to compare the grouping variable comprised of the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) between the independent variable of gender (male and female) of participating faculty members.

Research question 4 (H_04_1-H_04_5) was analyzed using a one-way analyses of variance (ANOVA). The grouping variable comprised of the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) and the independent variable that included four categories by years of work experience (0-5, 6-10, 11-15, 16+) of participating faculty members.

Research question 5 (H_05_1-H_05_5) was analyzed using a one-way analyses of variance (ANOVA). The grouping variable comprised of the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) and the independent variable that included four categories by academic discipline area (STEM field, ELA, Fine Arts, Social Science) of participating faculty members.

<u>Summary</u>

The methodology used in this study was reported in Chapter 3. The research design for this study, the research questions and null hypotheses, the population, and the survey information were also described. The data collection methodology and data analyses design were part of Chapter 3. The findings and the data analyses are presented in Chapter 4. The summary, findings, conclusions, and recommendations from this study are found in Chapter 5.

CHAPTER 4

FINDINGS

The purpose of this quantitative study was to investigate 9-12 faculty perceptions of

online instruction compared to traditional face-to-face instruction regarding visual arts mentor,

delivery method, satisfaction, student learning, and curriculum. Participants of this study

consisted of 490 high school teachers from 213 public school systems in Florida, Georgia, North

Carolina, Tennessee, and Virginia (Appendix E). The teachers surveyed were from traditional

and online high schools where the administrators agreed to allow research to occur.

In this chapter data are presented and analyzed to answer the five research questions and

25 null hypotheses. Data were analyzed from 32 survey questions. Included in the survey were

six demographic questions. The demographic questions included age of participant, gender of

participant, number of years teaching, area of teaching discipline, grades teaching, and delivery

method of the classes taught. There were three "yes or no" type questions about faculty mentors

(questions 7-9). The Likert-scale survey included six response areas (questions 10-29); strongly

agree, agree, somewhat agree, somewhat disagree, disagree, and strongly disagree. There were

two ranking questions about teaching methods (questions 30 & 31) and question 32 was open

ended. The survey was calculated to take under 15 minutes to complete. A copy of the survey

can be found in Appendix D.

Data were retrieved following the completion of a survey administered though the online

survey service; Survey Monkey. The survey was distributed once to each high school teacher

through a link provided to the administrator of each school system. Participants were advised

that all responses were anonymous and the demographic information collected did not identify

the participants in the study.

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Analysis of Research Questions

Research Question 1

Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) between faculty members who teach online and those who teach using traditional methods?

H_01_1: There is no significant difference in the mean scores on the visual arts survey for the mentor dimension between faculty members who teach online and those who teach using traditional methods

An independent-samples t test was conducted to evaluate the difference in the mean score of the mentor dimension by faculty members who teach online and those who teach using traditional methods. The dependent variable was mentor dimension. The independent variable was teaching delivery method. The test was significant, $t(341) = 4.78$, $p < .001$. Therefore, the null hypothesis was rejected. Traditional teachers (M = 12.69, SD = 1.91) had a mentor dimension score that was significantly higher than that of online teachers (M = 11.59, SD = 2.15). The 95% confidence interval for the difference in means was .65 to 1.56. The effect size was medium ($\eta^2 = .54$). Figure 1 illustrates the distribution of scores for the two groups (Traditional $n = 236$) and 2 (Online $n = 107$).
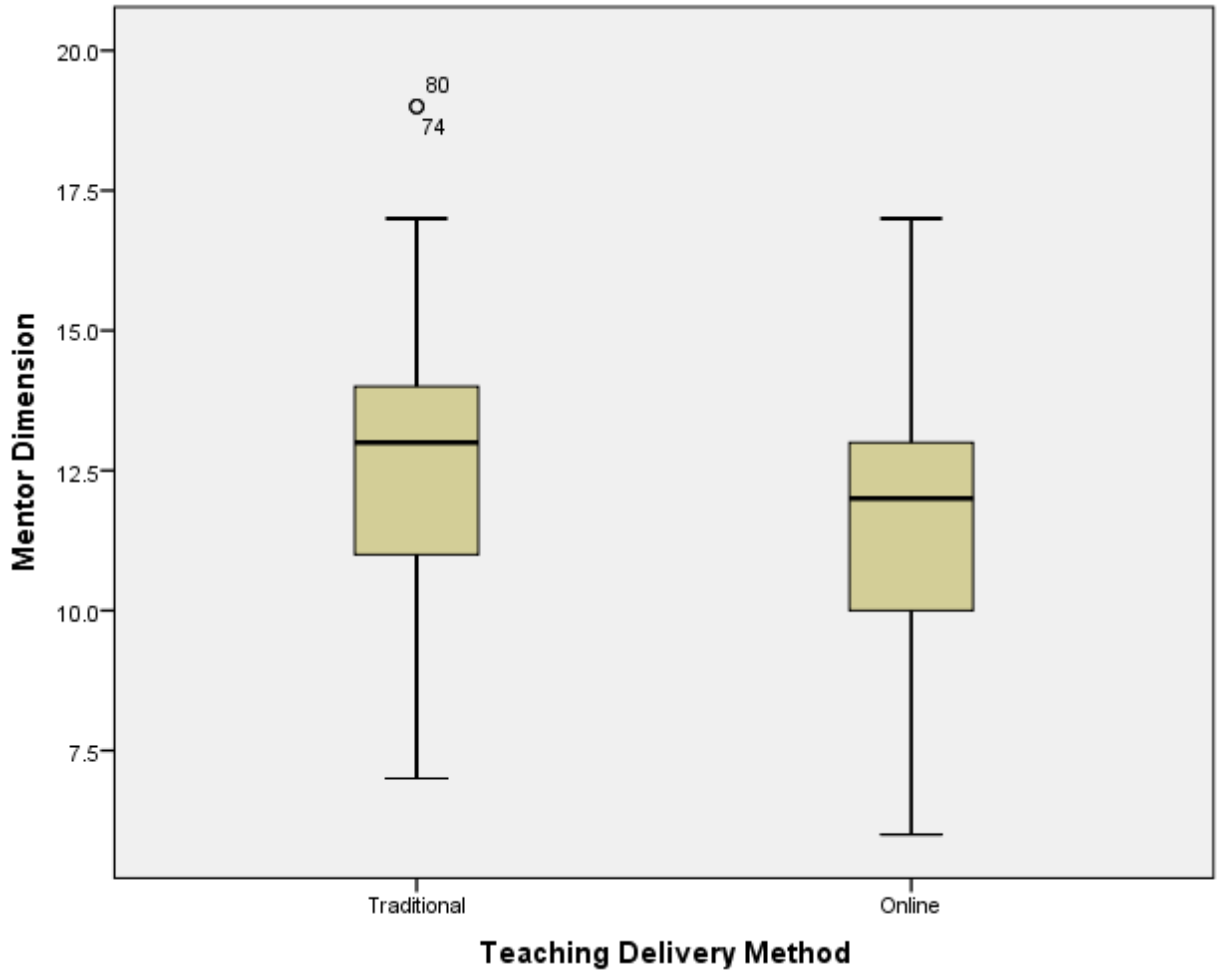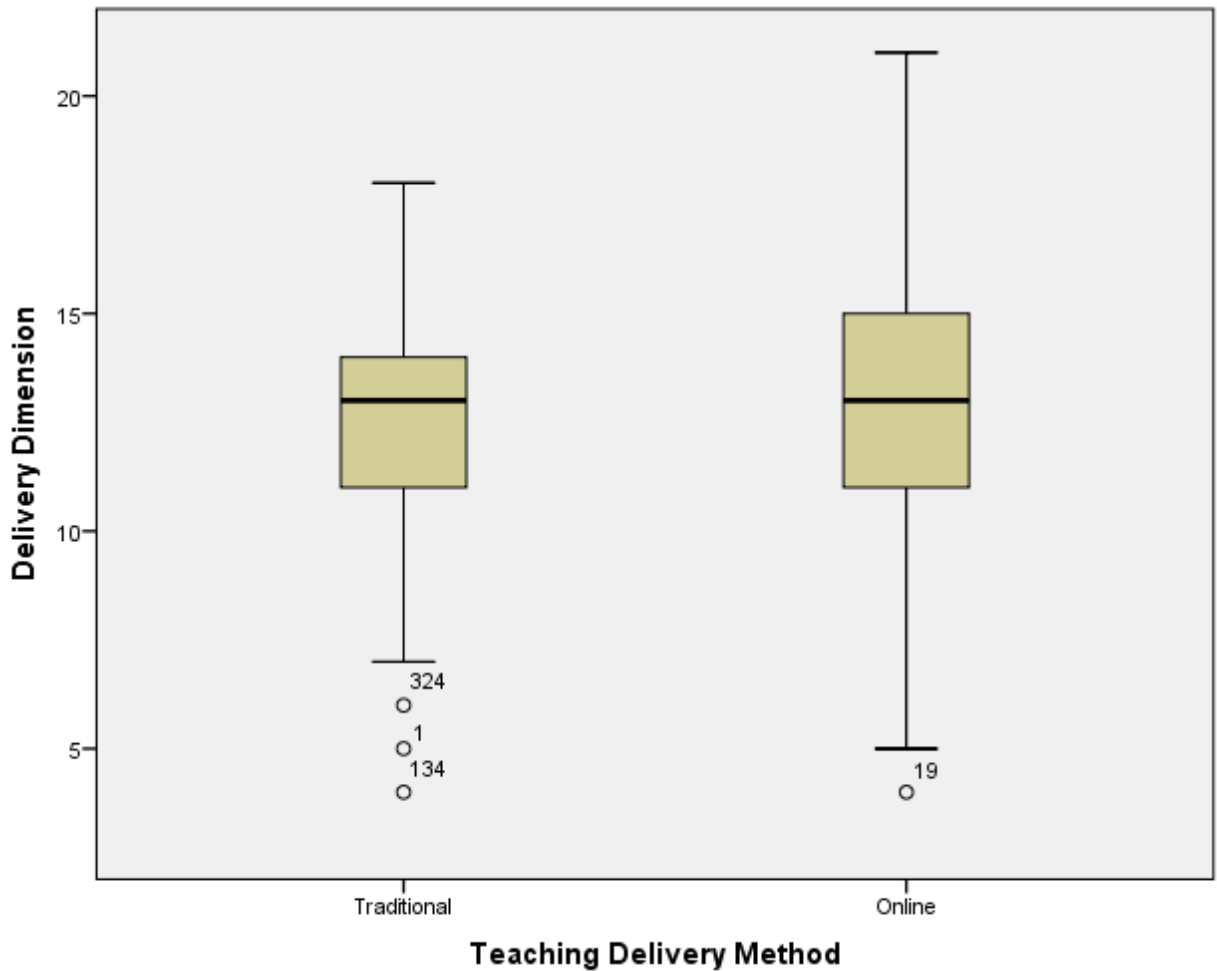
Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 1. Faculty perceptions of mentor for traditional and online delivery method.

H_012: There is no significant difference in the mean scores on the visual arts survey for

the delivery method dimension between faculty members who teach online and those

who teach using traditional methods.

An independent-samples *t* test was conducted to evaluate the difference in the mean score

of the delivery dimension between faculty members who teach online and those who teach using

traditional methods. The independent variable was teaching delivery method. The dependent

variable was delivery dimension. The test was not significant, $t(252) = 1.41$, $p = .159$. Therefore,

the null hypothesis was retained. The 95% confidence interval for the difference in means was

-1.09 to .18. As a result perceptions of faculty members in the delivery dimension do not differ

between traditional and online. Figure 2 illustrates the distribution of scores for the two groups

(Traditional $n = 241$) and 2 (Online $n = 103$).
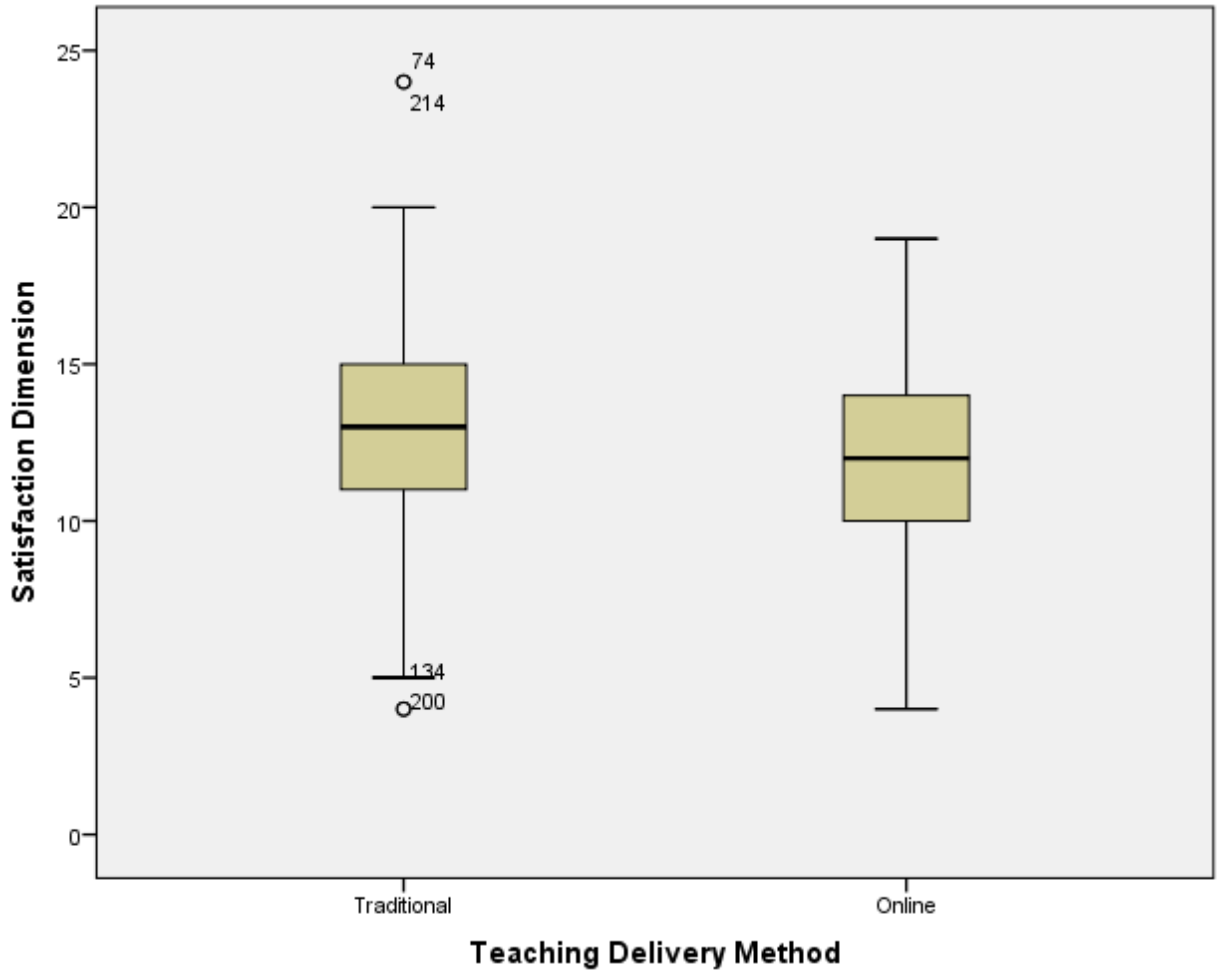

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 2. Faculty perceptions of delivery for traditional and online delivery method.

H_013: There is no significant difference in the mean scores on the visual arts survey for

the satisfaction dimension between faculty members who teach online and those who

teach using traditional methods.

An independent-samples *t* test was conducted to evaluate the difference in the mean score of the satisfaction dimension between faculty members who teach online and those who teach using traditional methods. The independent variable was teaching delivery method. The dependent variable was satisfaction dimension. The test was not significant, $t(347) = .85$, $p = .344$. Therefore, the null hypothesis was retained. As a result perceptions of faculty members in the satisfaction dimension do not differ between traditional and online. The 95% confidence interval for the difference in means was -.38 to 1.07. Figure 3 illustrates the distribution of scores for the two groups (Traditional $n = 244$) and 2 (Online $n = 105$).

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 3. Faculty perceptions of satisfaction for traditional and online delivery method.

H_014: There is no significant difference in the mean scores on the visual arts survey for

the student learning dimension between faculty members who teach online and those who

teach using traditional methods.

An independent-samples *t* test was conducted to evaluate the difference in the mean score

of the student learning dimension between faculty members who teach online and those who

teach using traditional methods. The independent variable was teaching delivery method. The

dependent variable was student learning dimension. The test was not significant, $t(347) = .10$,

p = .924. Therefore, the null hypothesis was retained (η^2 = .54). As a result, perceptions of

faculty members in the student learning dimension do not differ between traditional and online.

The 95% confidence interval for the difference in means was .61 to .69. Figure 4 illustrates the

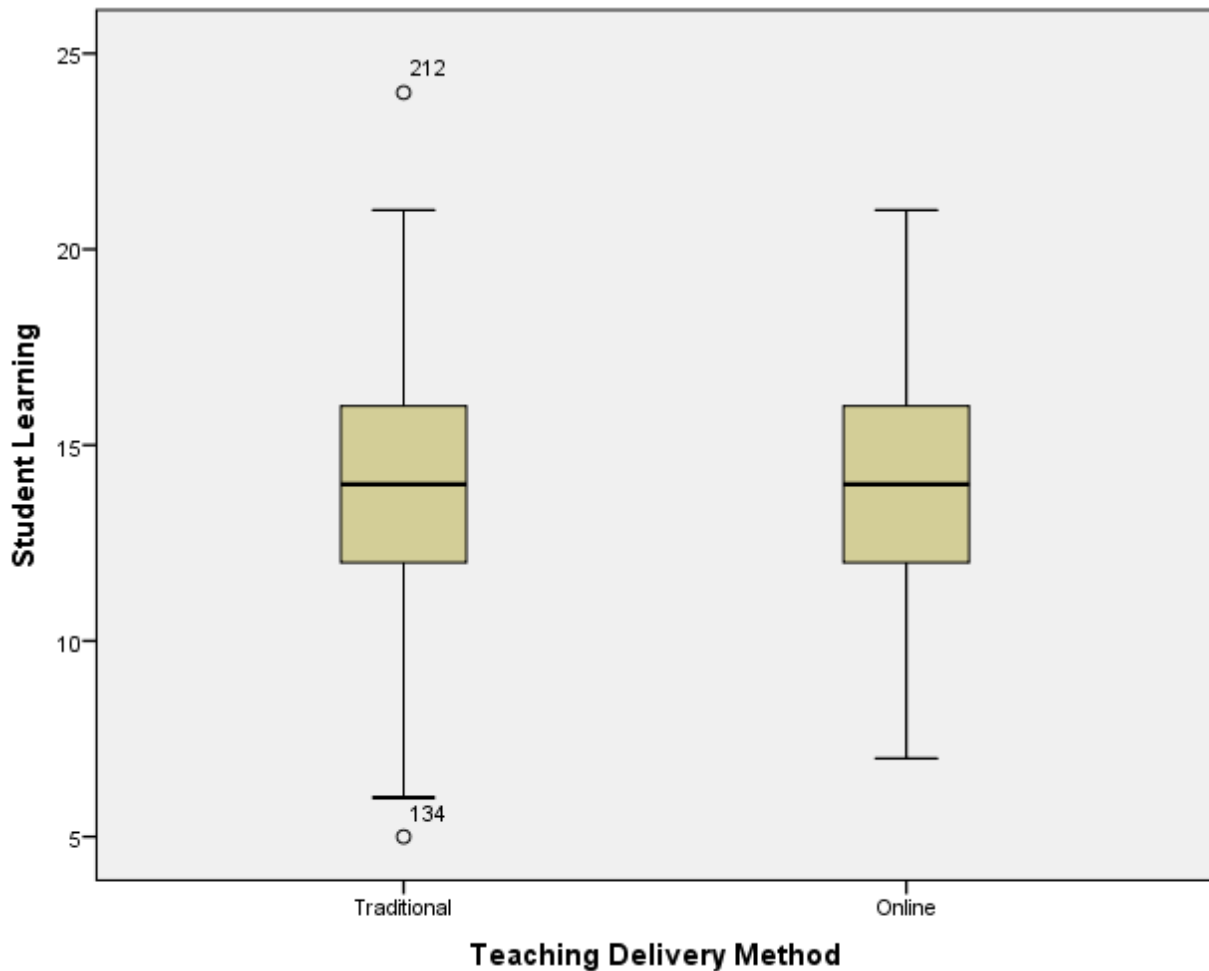distribution of scores for the two groups (Traditional *n* = 242) and 2 (Online *n* = 107).
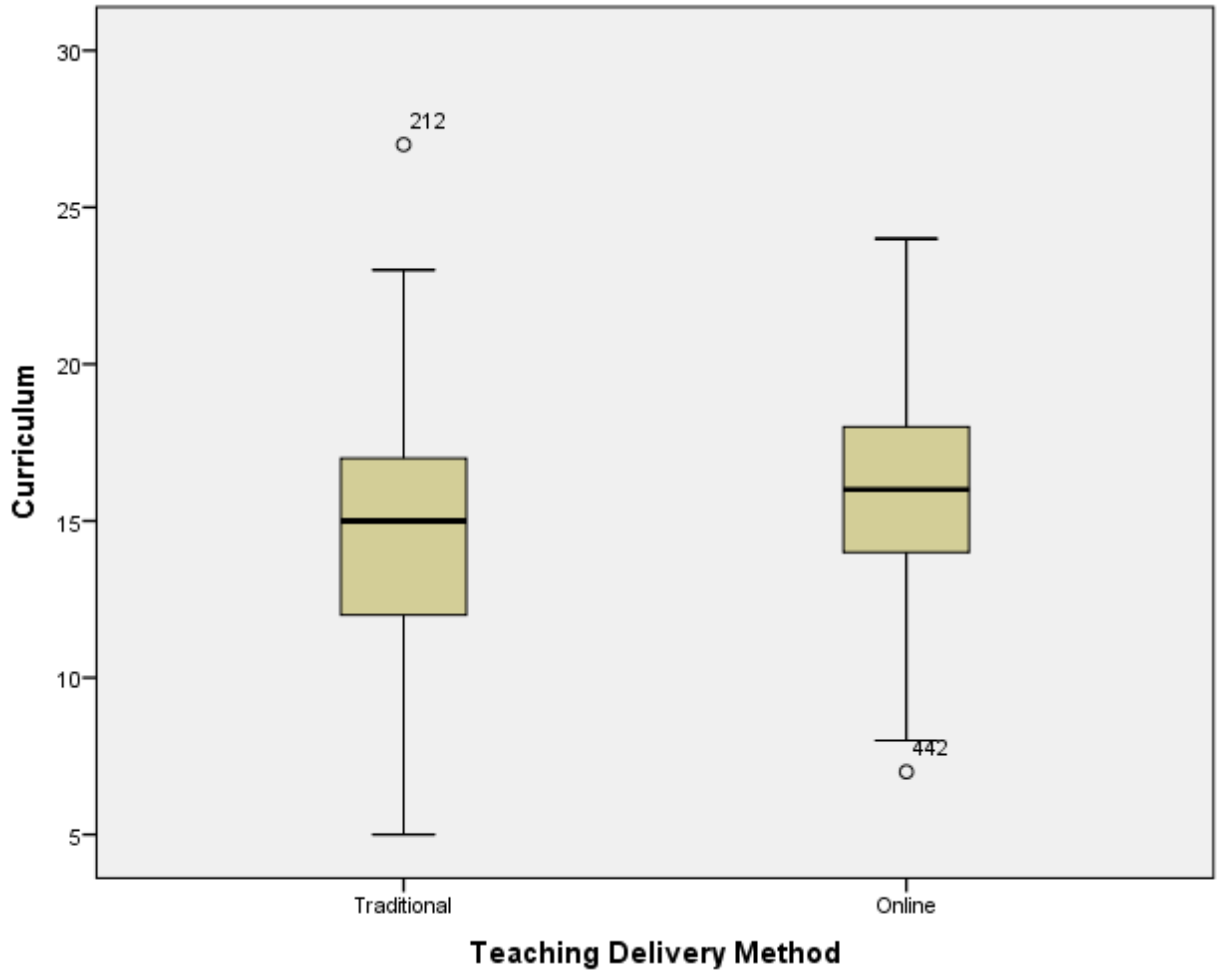

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 4. Faculty perceptions of student learning for traditional and online delivery method.

H_01_5: There is no significant difference in the mean scores on the visual arts survey for

the curriculum dimension between faculty members who teach online and those who

teach using traditional methods.

An independent-samples *t* test was conducted to evaluate the difference in the mean score of the curriculum dimension by faculty members who teach online and those who teach using traditional methods. The independent variable was teaching delivery method. The dependent variable was curriculum dimension. The test was significant, $t(350) = 3.30$, $p < .001$. Therefore, the null hypothesis was rejected. Traditional teachers (M = 14.49, SD = 3.28) had a mentor dimension score that tended to be lower than that of online teachers (M = 15.77, SD = 3.45). The 95% confidence interval for the difference in means was -2.05 to -.52. The effect size was small ($\eta^2 = .38$). Figure 5 illustrates the distribution of scores for the two (Traditional *n* = 247) and 2 (Online *n* = 105).

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 5. Faculty perceptions of curriculum for traditional and online delivery method.

Research Question 2

Are there significant differences in the mean scores on the visual arts survey for the five

dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by age

groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older)?
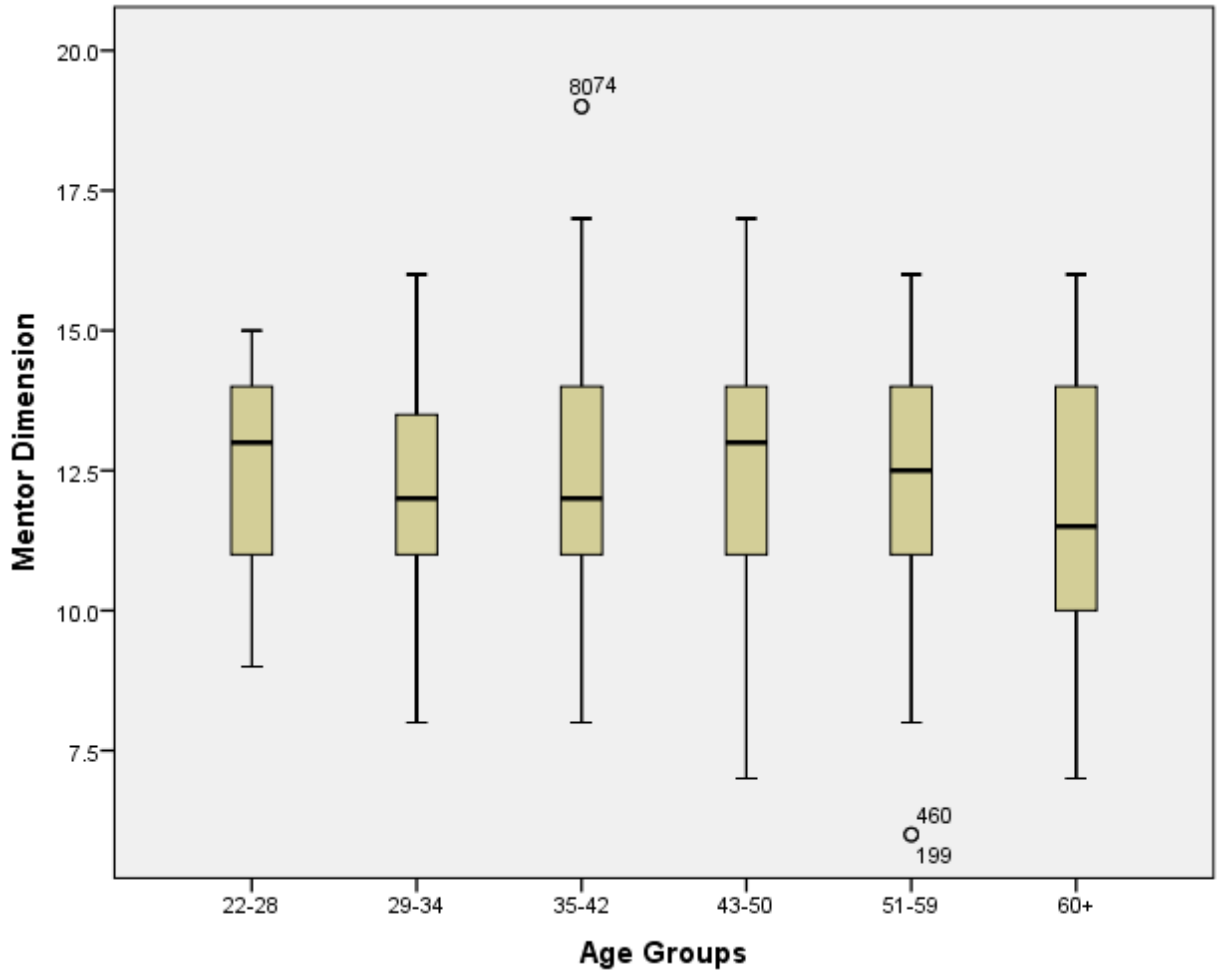
H_02_1: There is no significant difference in the mean scores of the visual arts survey on

mentor dimension by age groups for participating faculty members (22-28, 29-34, 35-42,

43-50, 51-59, and 60 or older).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between mentor dimension and participating faculty members age groups (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older). The independent variable was the age groups. The dependent variable was the mentor dimension. The ANOVA was not significant, $F(5, 367) = 5.25$, $p = .300$. Therefore, the null hypothesis was retained. The strength of relationship between the mentor dimension and the age of the faculty members as assessed by $\eta^2 = .02$. Therefore, the effect size was weak. Figure 6 illustrates the distribution of mentor dimension scores in the six age category groups. Table 1 shows the means and standard deviation in the mentor dimension of age groups.

Table 1

Means and SD of Age Groups in Mentor Dimension

Age Group	N	M	SD
22-28	45	12.71	1.71
29-34	48	12.31	1.81
35-42	81	12.26	2.23
43-50	73	12.45	2.00
51-59	82	12.30	2.06
60+	44	11.68	2.49

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 6. Mentor dimension by age groups for participating faculty members.

H_022: There is no significant difference in the mean scores of the visual arts survey on

delivery method dimension by age groups for participating faculty members (22-28, 29-

34, 35-42, 43-50, 51-59, and 60 or older).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship

between delivery dimension and participating faculty members age groups. The independent

variable was the age groups. The dependent variable was the delivery dimension. The ANOVA

was significant, $F(5, 372) = 7.62$, $p < .001$. Therefore, the null hypothesis was rejected. The

strength of relationship between the delivery dimension and the age of the faculty members' was

.09. Therefore, the effect size was small. Follow-up tests were conducted to evaluate pairwise differences among the means. Because the variances among the six groups ranged from 0 to .31, variances were assumed to be homogenous. The Tukey HSD procedure was used to control for Type I error across the pairwise comparisons. Participants in the 22-28 age group (M = 11.85, SD = 2.55) showed a significant difference from participants in the 51-59 age range (M = 13.79, SD = 2.65). Participants in the 29-34 age group (M = 12.30, SD = 2.98) showed a significant difference from participants in the 51-59 age group. Participants in the 35-42 age group (M = 11.60, SD = 2.63) showed a significant difference from participants in the 43-50 age group (M = 12.88, SD = 2.61) and 51-59 age group. Participants in the 51-59 age group showed a significant difference from participants in the 60+ age group (M = 11.60, SD = 2.81). Figure 7 illustrates the distribution of delivery dimension scores in the six age category groups. Table 2 shows the means and standard deviations with 95% confidence intervals of the pairwise differences.

Table 2

Means and SD of Age with 95% CI of Pairwise Differences (Delivery)

Age Group	N	M	SD	22-28	29-34	35-42	43-50	51-59
22-28	47	11.85	2.55					
29-34	46	12.30	2.98	-1.15 to 2.05				
35-42	80	11.60	2.63	-1.67 to 1.17	-2.13 to .72			
43-50	78	12.88	2.61	-.39 to 2.46	-.85 to 2.01	.06 to 2.51*		
51-59	87	13.79	2.65	.55 to 3.34*	.08 to 2.89*	1.00 to 3.39*	-.29 to 2.11	
60+	40	11.60	2.85	-1.91 to 1.41	-2.37 to .96	-1.49 to 1.49	-2.78 to .21	-3.67 to -.72*

*indicates a significant difference
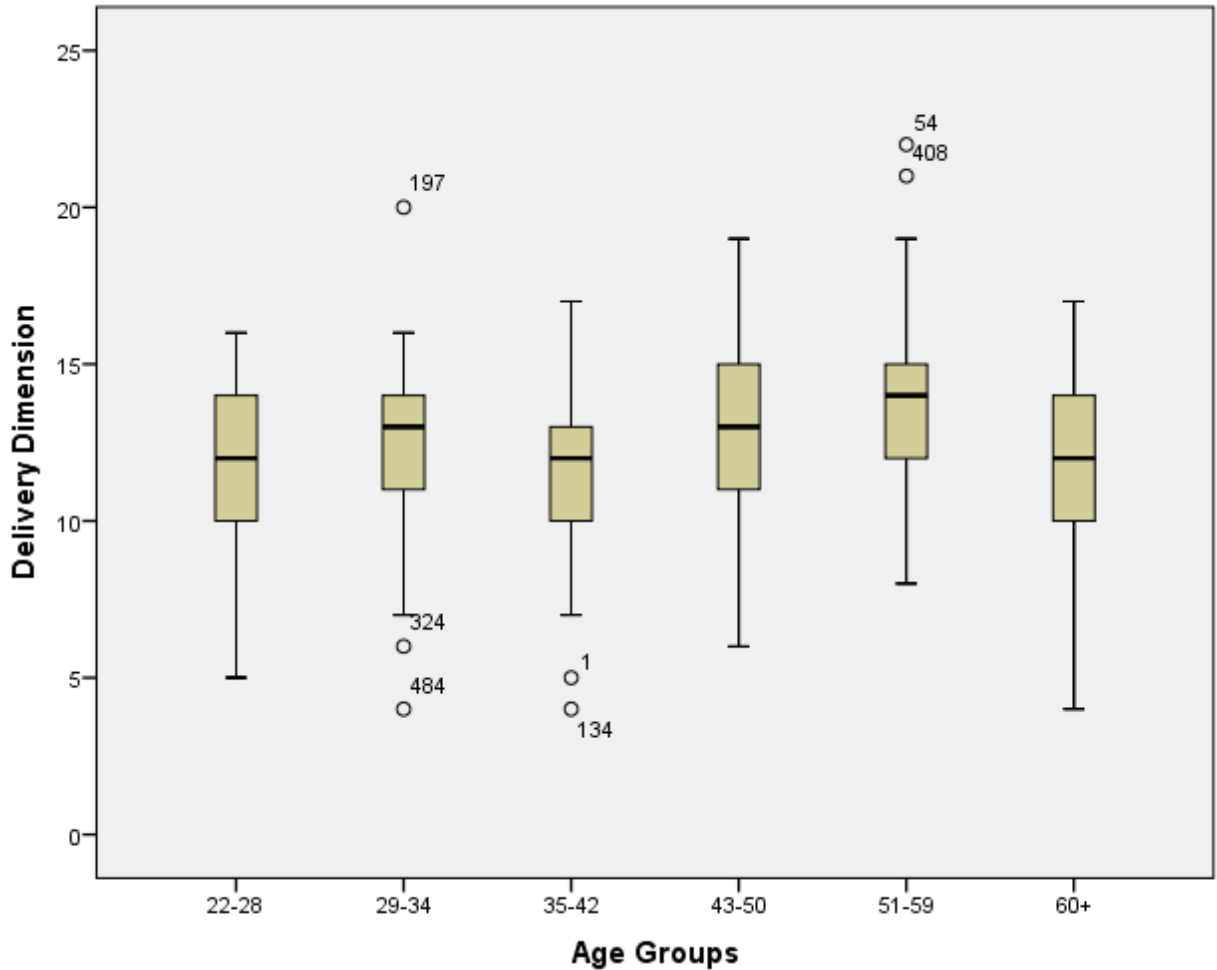
Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 7. Delivery dimension by age groups for participating faculty members.

$H_0 2_3$: There is no significant difference in the mean scores of the visual arts survey on

satisfaction dimension by age groups for participating faculty members (22-28, 29-34,

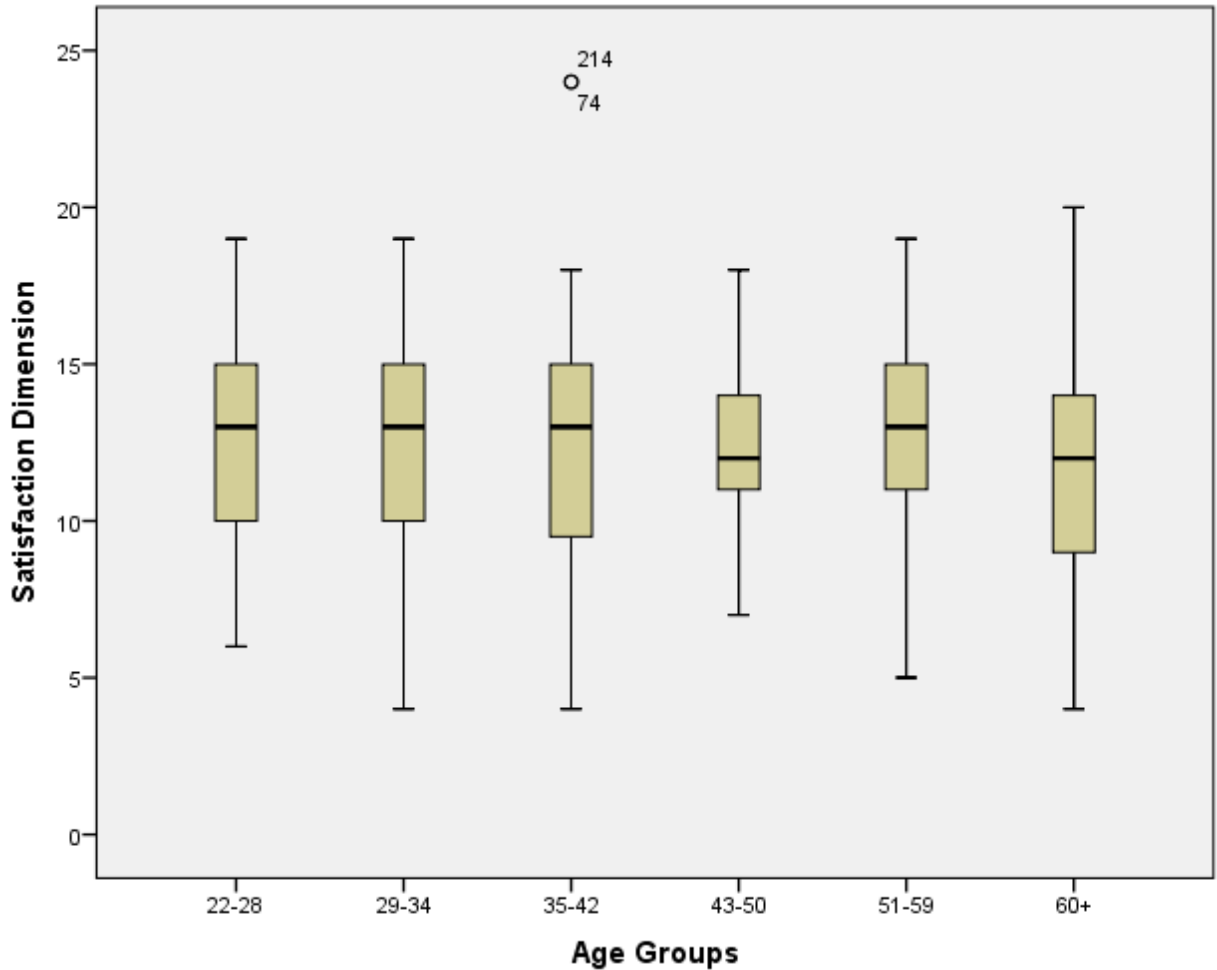35-42, 43-50, 51-59, and 60 or older).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship

between satisfaction dimension and participating faculty members age groups (22-28, 29-34, 35-

42, 43-50, 51-59, and 60 or older). The independent variable was the age groups. The dependent

variable was the satisfaction dimension. The ANOVA was not significant, $F(5, 376) = 1.37$, *p* =

.235. Therefore, the null hypothesis was retained. The strength of relationship between the satisfaction dimension and the age of the faculty members was .02. Therefore, the effect size was weak. Figure 8 illustrates the distribution of satisfaction dimension scores in the six age category groups. Table 3 shows the means and standard deviations in the satisfaction dimension of age groups.

Table 3

Means and SD of Age Groups in Satisfaction Dimension

Age Group	N	M	SD
22-28	48	12.56	3.24
29-34	51	12.41	3.43
35-42	79	12.35	3.73
43-50	80	12.25	2.59
51-59	82	12.77	2.81
60+	42	11.24	3.36

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 8. Satisfaction dimension by age groups for participating faculty members.

$H_0 2_4$: There is no significant difference in the mean scores of the visual arts survey on student learning dimension by age groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between student learning dimension and participating faculty members age groups. The independent variable was the age groups. The dependent variable was the student learning dimension. The ANOVA was significant, $F(5, 375) = 2.54$, $p = .028$. Therefore, the null hypothesis was rejected. The strength of relationship between the student learning dimension and

the age of the faculty members was .03. Therefore, the effect size was small. A Tukey follow-up

test was conducted to evaluate pairwise differences among the means which were found to be not

statistically significant. Additionally, a Scheffe test was conducted to evaluate pairwise

differences among the means which were found to be not statistically significant F(5, 375) =

2.52, p = .233. Figure 9 illustrates the distribution of student learning dimension scores in the six

age category groups. Table 4 shows the means and standard deviations with 95% confidence

intervals of the pairwise differences.

Table 4

Means and SD of Age with 95% CI of Pairwise Differences (Student Learning)

Age Group	N	M	SD	22-28	29-34	35-42	43-50	51-59
22-28	47	14.19	2.61					
29-34	49	14.35	2.79	-1.50 to 1.81				
35-42	78	13.33	2.72	-2.35 to .64	-2.49 to.46			
43-50	79	14.25	2.71	-1.43 to 1.55	-1.57 to 1.38	-.37 to 2.21		
51-59	86	14.38	2.98	-1.28 to 1.66	-1.41 to 1.49	-.22 to 2.32	-1.13 to 1.39	
60+	42	13.00	3.15	-2.91 to .53	-3.05 to .36	-1.88 to 1.22	-2.80 to .29	-2.91 to .14

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 9. Student Learning dimension by age groups for participating faculty members.

$H_0 2_5$: There is no significant difference in the mean scores of the visual arts survey on curriculum dimension by age groups for participating faculty members (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older).
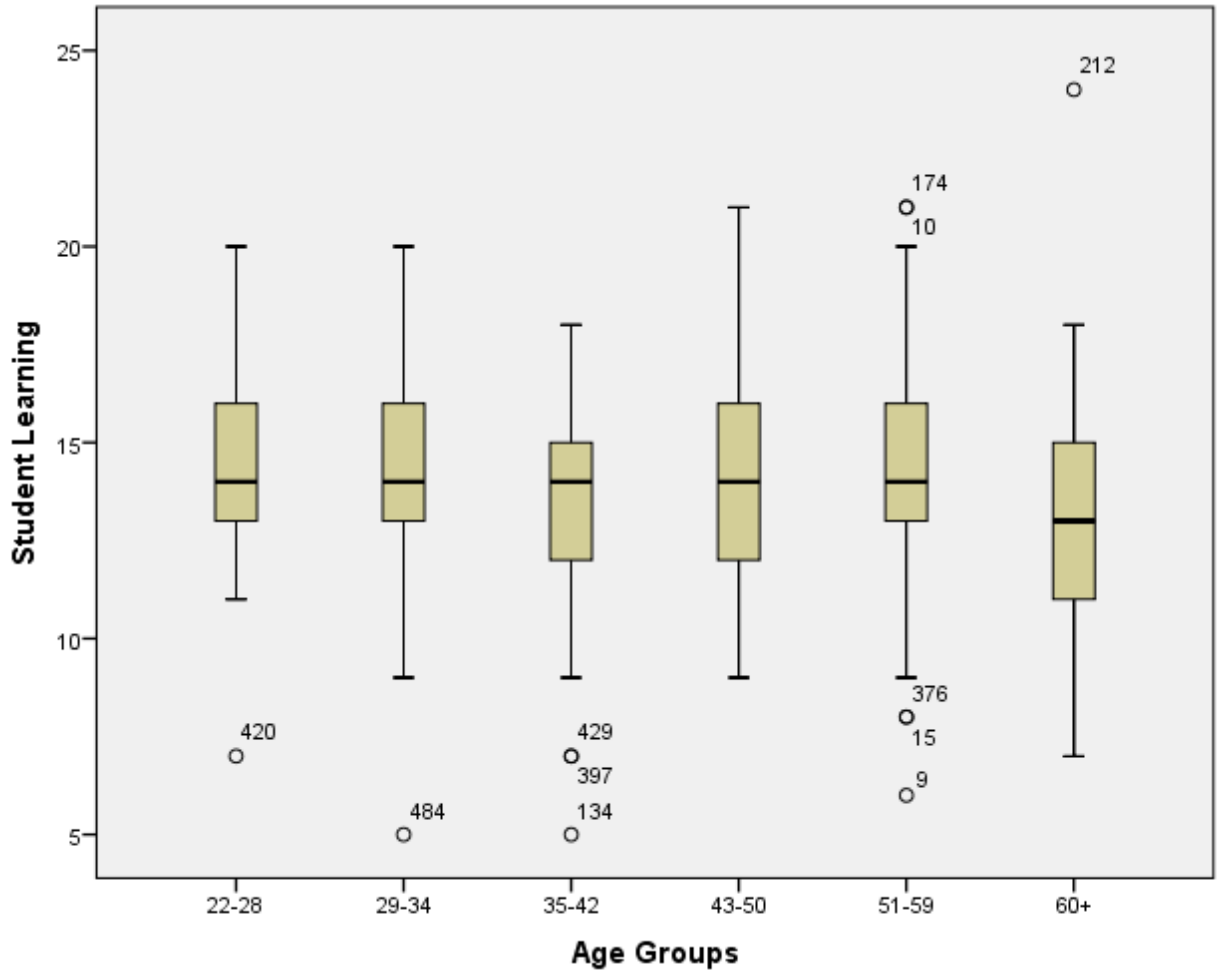
A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between curriculum dimension and participating faculty members age groups (22-28, 29-34, 35-42, 43-50, 51-59, and 60 or older). The independent variable was the age groups. The dependent variable was the curriculum dimension. The ANOVA was not significant, $F(5, 382) = 2.07$,

p = .069. Therefore, the null hypothesis was retained. The strength of relationship between the

curriculum dimension and the age of the faculty members was .07. Therefore, the effect size was

weak. Figure 10 illustrates the distribution of curriculum dimension scores in the six age

category groups. Table 5 shows the means and standard deviation in the curriculum dimension of

age groups.

Table 5

Means and SD of Age Groups in Curriculum Dimension

Age Group	N	M	SD
22-28	50	14.22	3.07
29-34	50	14.94	3.36
35-42	80	14.34	3.62
43-50	80	15.23	3.12
51-59	84	15.67	3.18
60+	44	14.45	3.68
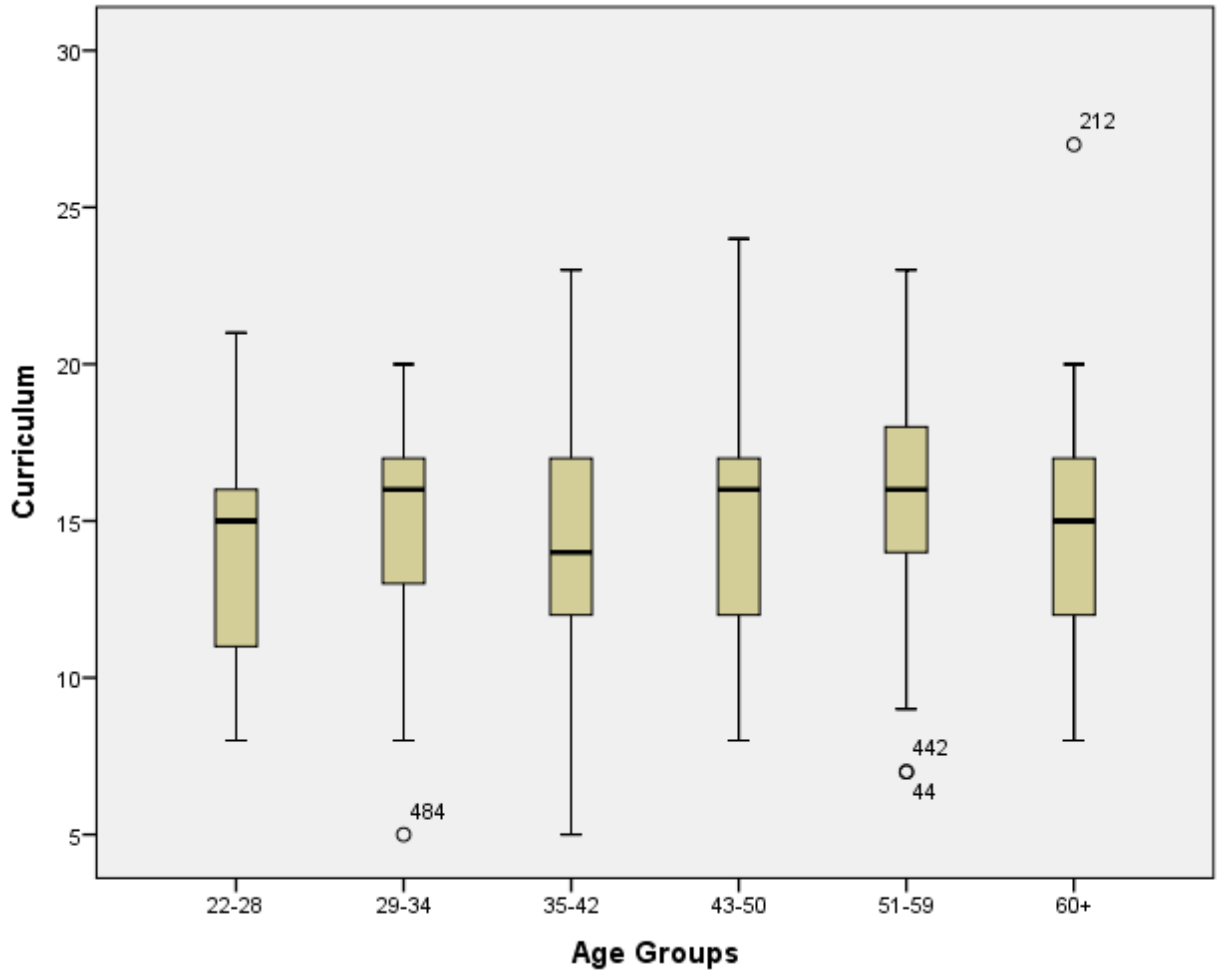
Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 10. Curriculum dimension by age groups for participating faculty members.

Research Question 3

Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by gender for participating faculty members?

H_031: There is no significant difference in the mean scores of the visual arts survey on mentor dimension by gender for participating faculty members.

An independent-samples *t* test was conducted to evaluate the difference in the mean score

of the mentor dimension by gender. The independent variable for the two groups was gender. The dependent variable was mentor dimension. The test was not significant, $t(371) = .61$, $p = .545$. Therefore, the null hypothesis was retained. As a result perceptions of faculty members in the mentor dimension do not differ between males and females. The 95% confidence interval for the difference in means was -.30 to .58. Figure 11 illustrates the distribution of scores for both (Female $n = 241$) and 2 (Male $n = 132$).

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 11. Mentor dimension by gender for participating faculty members.

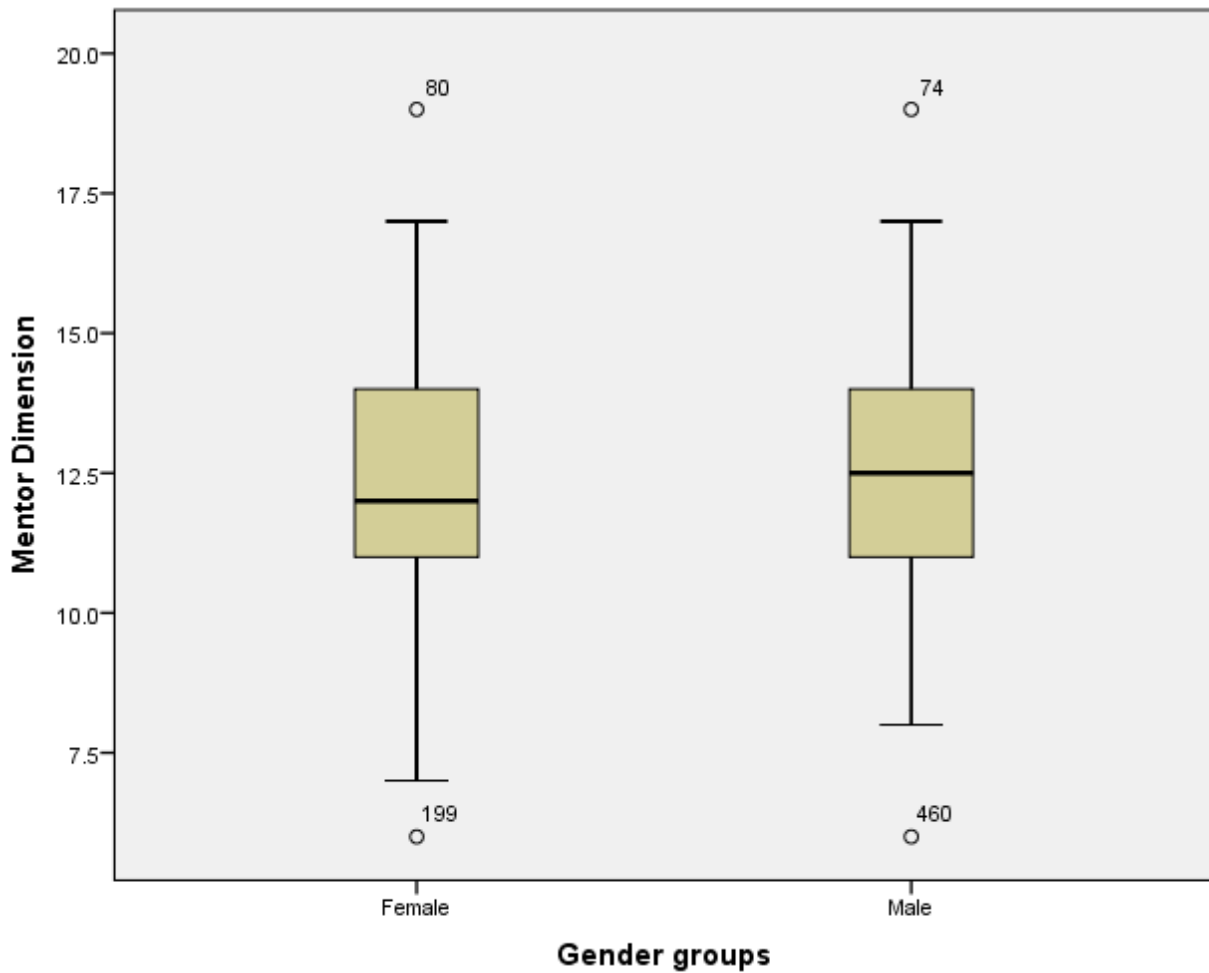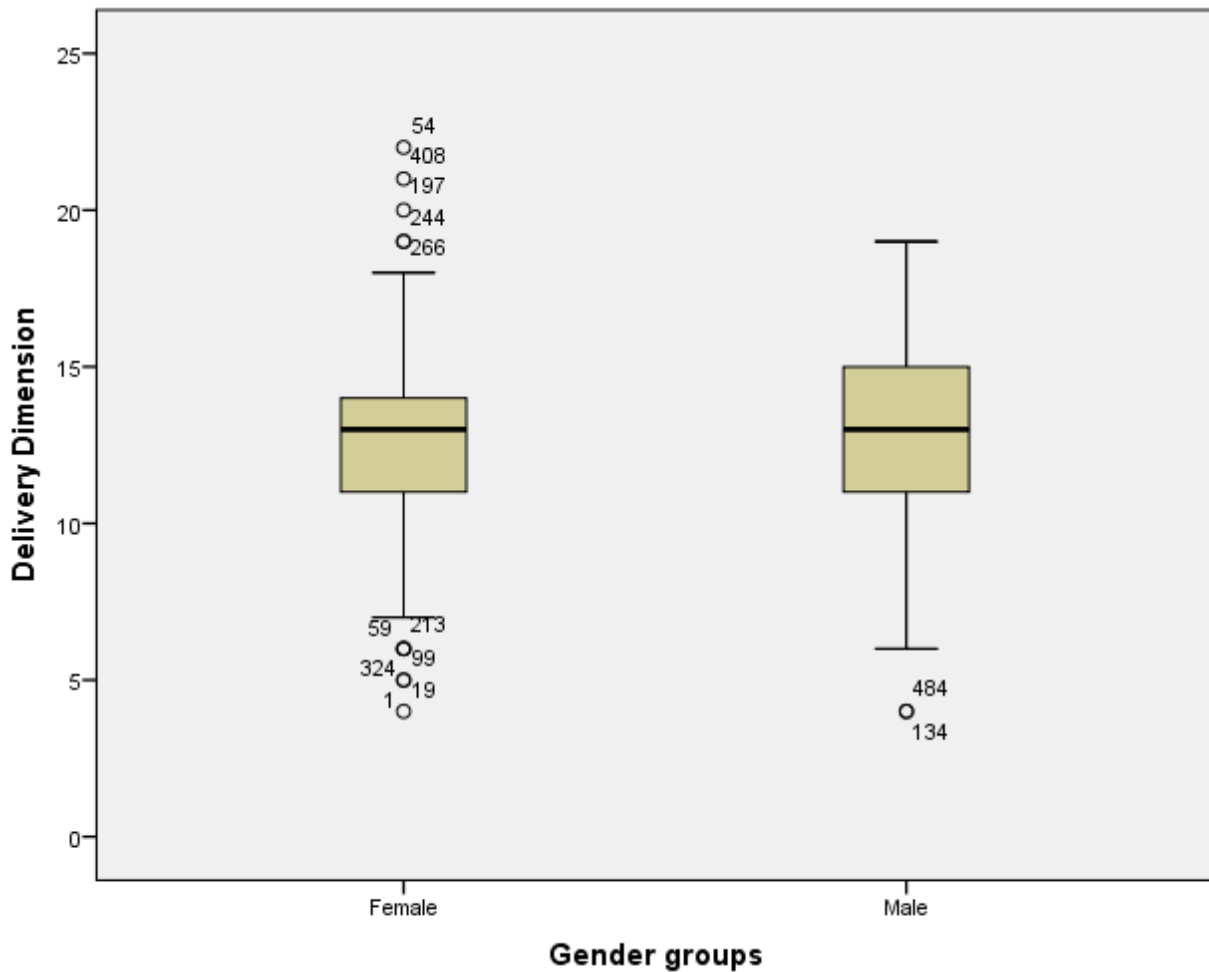H_032: There is no significant difference in the mean scores of the visual arts survey on delivery method dimension by gender for participating faculty members.

An independent-samples *t* test was conducted to evaluate the difference in the mean score of the delivery dimension by gender. The independent variable for the two groups was gender. The dependent variable was delivery dimension. The test was not significant, $t(374) = .74$, $p = .461$. Therefore, the null hypothesis was retained. As a result perceptions of faculty members in the delivery dimension do not differ between males and females. The 95% confidence interval for the difference in means was -.83 to .38. Figure 12 illustrates the distribution of scores for each group (Female $n = 246$) and 2 (Male $n = 130$).

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 12. Delivery dimension by gender for participating faculty members.

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H_03_3: There is no significant difference in the mean scores of the visual arts survey on

satisfaction dimension by gender for participating faculty members.

An independent-samples t test was conducted to evaluate the difference in the mean score

of the satisfaction dimension by gender. The independent variable for the two groups was

gender. The dependent variable was satisfaction dimension. The test was not significant,

$t(380) = .33$, $p = .740$. Therefore, the null hypothesis was retained. As a result perceptions of

faculty members in the satisfaction dimension do not differ between males and females. The

95% confidence interval for the difference in means was -.78 to .56. Figure 13 illustrates the

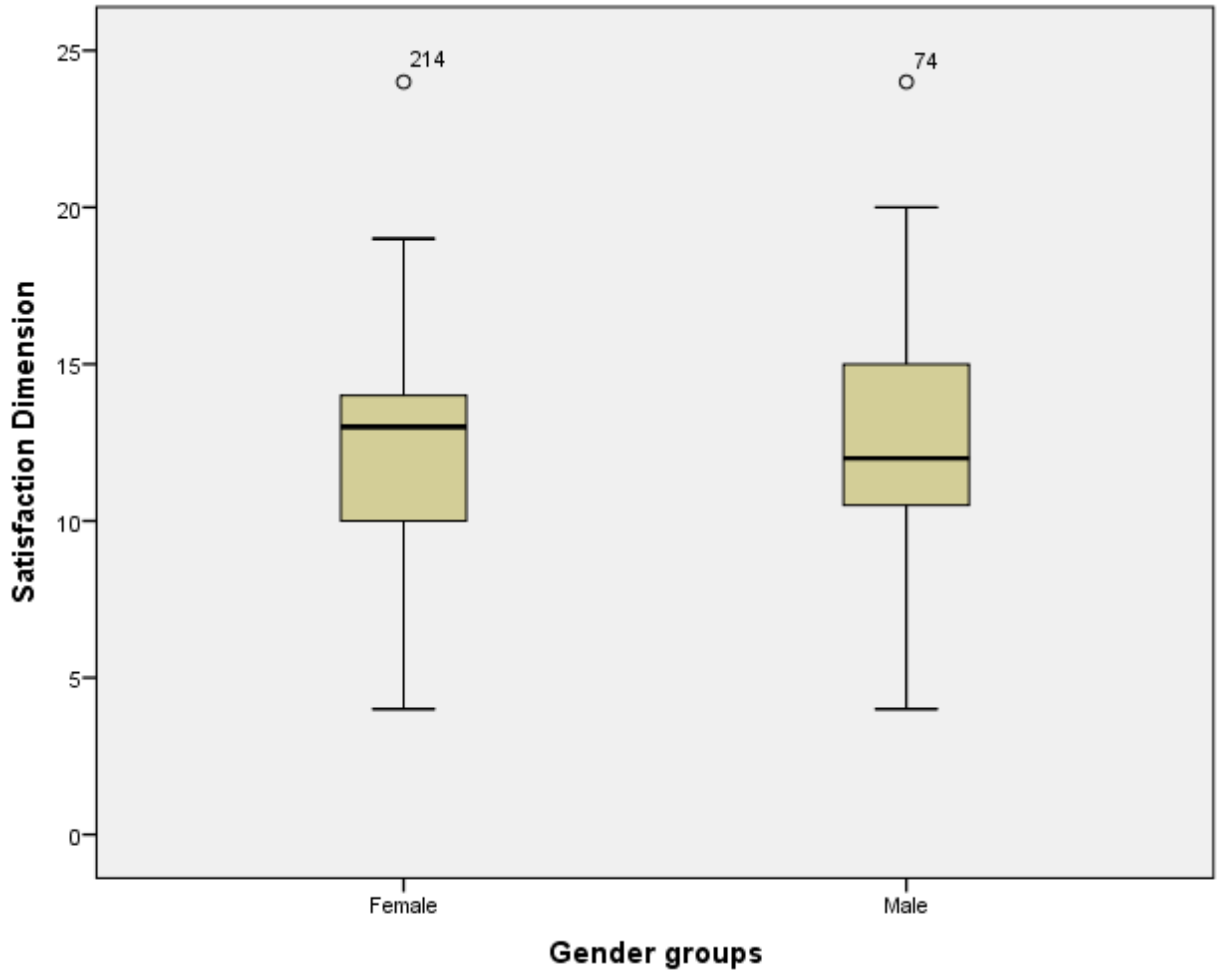distribution of scores for each group (Female $n = 246$) and 2 (Male $n = 136$).

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 13. Satisfaction dimension by gender for participating faculty members.

H$_0$3$_4$: There is no significant difference in the mean scores of the visual arts survey on

student learning dimension by gender for participating faculty members.

An independent-samples *t* test was conducted to evaluate the difference in the mean score

of the student learning dimension by gender. The independent variable for the two groups was

gender. The dependent variable was student learning dimension. The test was not significant,

$t(379) = 1.49$, $p = .135$. Therefore, the null hypothesis was retained. As a result perceptions of

faculty members in the student learning dimension do not differ between males and females. The

955 confidence interval for the difference in means was -1.07 to .15. Figure 14 illustrates the

distribution of scores for each group (Female $n = 248$) and 2 (Male $n = 133$).

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 14. Student learning dimension by gender for participating faculty members.

H$_0$3$_5$: There is no significant difference in the mean scores of the visual arts survey on

curriculum dimension by gender for participating faculty members.

An independent-samples *t* test was conducted to evaluate the difference in the mean score

of the curriculum dimension by gender. The independent variable for the two groups is gender.

The dependent variable is curriculum dimension. The test was not significant,

$t(385) = 1.09$, $p = .275$. Therefore, the null hypothesis was retained. As a result perceptions of

faculty members in the curriculum dimension do not differ between males and females. The 95%

confidence interval for the difference in means was -1.10 to .31. Figure 15 illustrates the

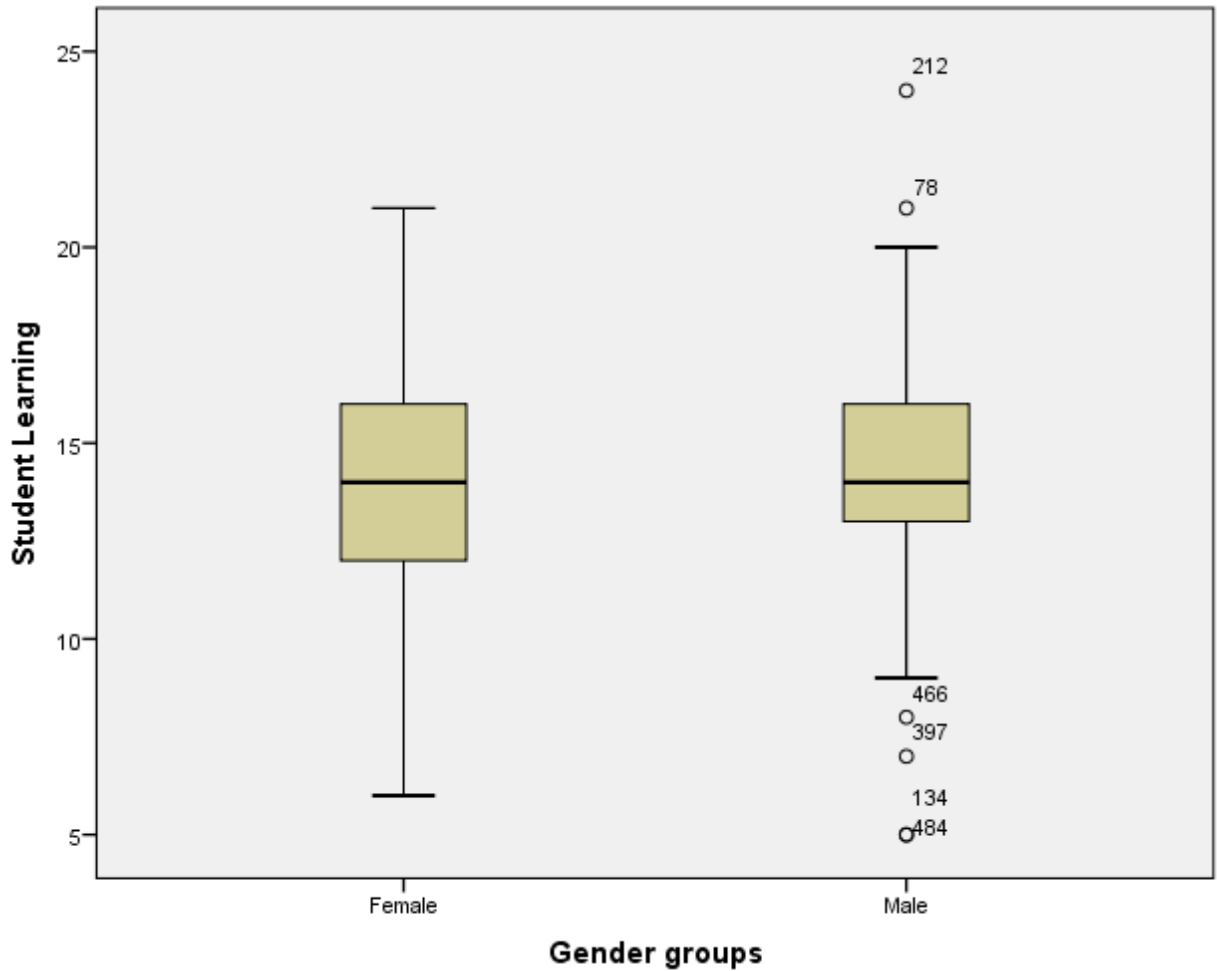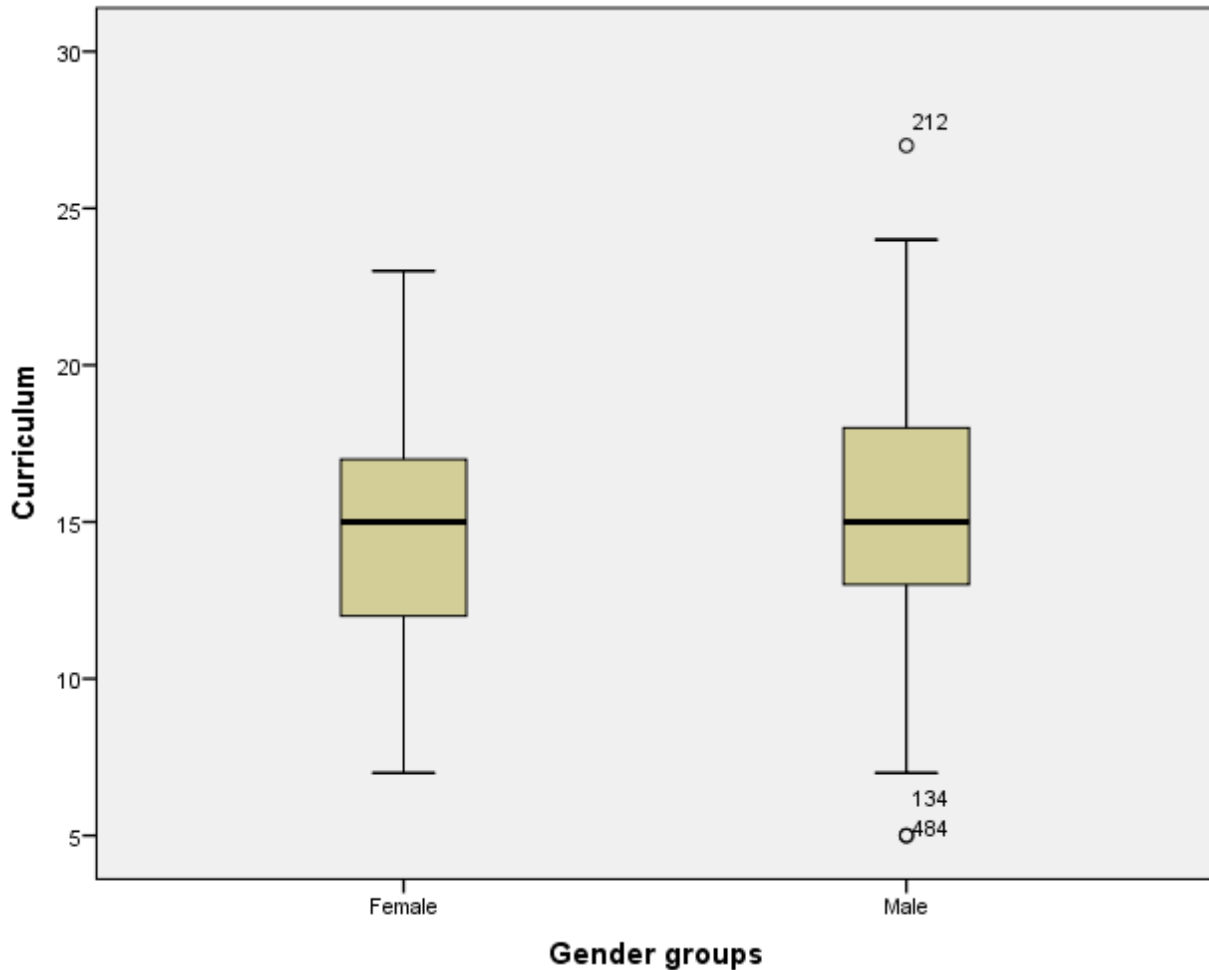distribution of scores for each group (Female $n = 254$) and 2 (Male $n = 133$).

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 15. Curriculum dimension by gender for participating faculty members.

Research Question 4

Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more)?

H_041: There is no significant difference in the mean scores of the visual arts survey on mentor dimension by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between mentor dimension and participating faculty member years worked groups (0-5, 6-10, 11-15, 16+). The independent variable was the years worked groups. The dependent variable was the mentor dimension. The ANOVA was not significant, $F(3, 367) = .30$, $p = .822$. Therefore, the null hypothesis was retained. The strength of relationship between the mentor dimension and the years worked of the faculty members was .01. Therefore, the effect size was weak. Figure 16 illustrates the distribution of mentor dimension scores in the four years worked groups. Table 6 shows the means and standard deviations in the mentor dimension of the years worked groups.

Table 6

Means and SD of Years Worked Groups in Mentor Dimension

Years Worked	N	M	SD
0-5	83	12.46	2.18
6-10	61	12.33	2.23
11-15	68	12.15	1.91
16+	159	12.26	2.15

Note: o = an observation between 1.5 and 3.0 times the interquartile range

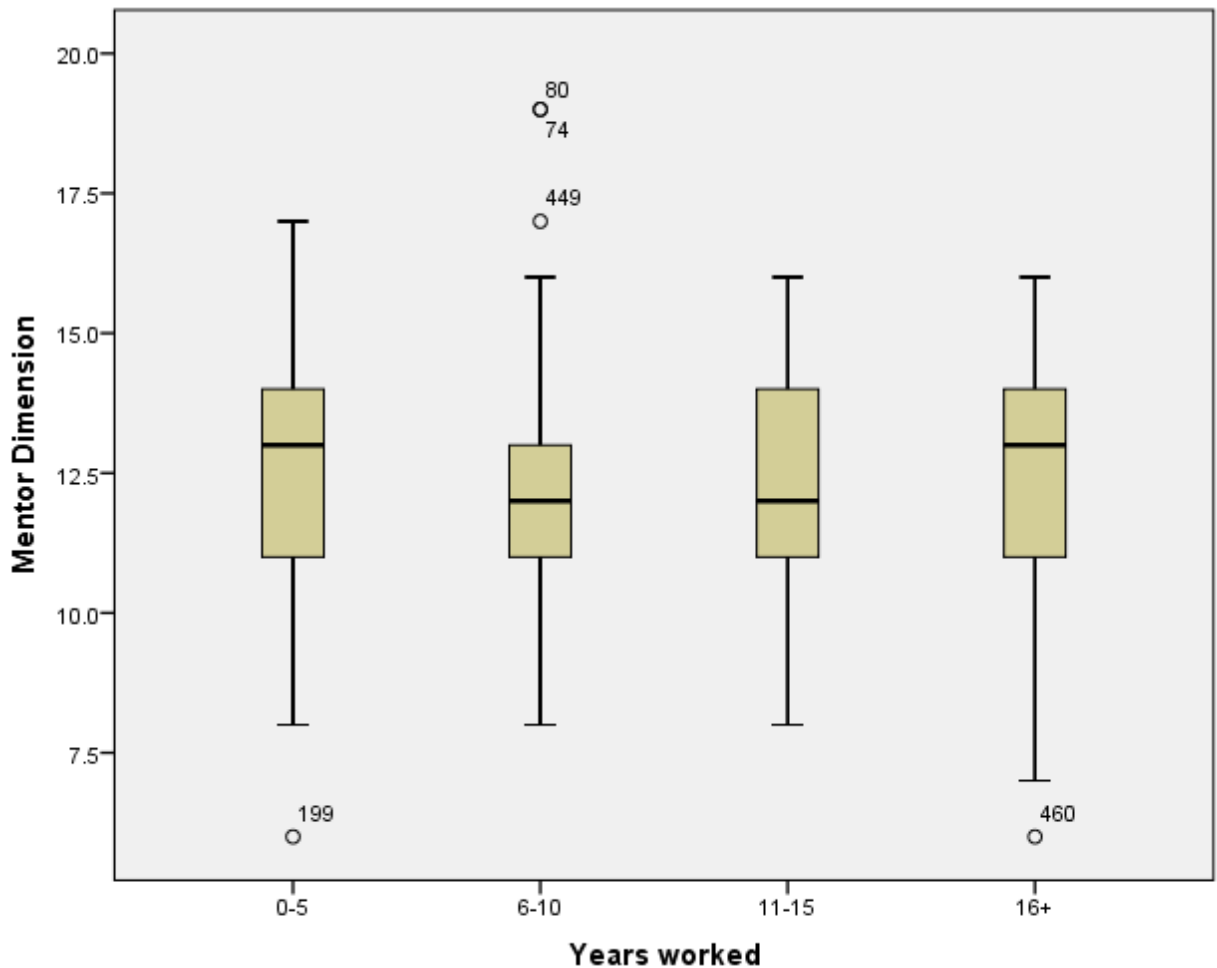*Figure 16*. Mentor by years of work experience for participating faculty members.

H_042 There is no significant difference in the mean scores of the visual arts survey on

delivery method dimension by years of work experience for participating faculty

members (0-5, 6-10, 11-15, and 16 years or more).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship

between delivery dimension and participating faculty member years worked groups (0-5, 6-10,

11-15, 16+). The independent variable was the years worked groups. The dependent variable was

the delivery dimension. The ANOVA was significant, $F(3, 373) = 2.88$, $p = .036$. Therefore, the null hypothesis was rejected. The strength of relationship between the delivery dimension and the years worked groups of the faculty members was .02. Therefore, the effect size was small. Follow-up tests were conducted to evaluate pairwise differences among the means. Because the variances among the four groups ranged from .029 to 1.000, variances were assumed to be heterogeneous. The Tukey HSD procedure was used to control for Type I error across the pairwise comparisons. Two groups were found to be significantly different from all others ($p <$ .05). Participants in the 0-5 years worked group ($M = 11.88$, $SD = 2.87$) showed a significant variance from participants in the 16+ years worked group ($M = 12.93$, $SD = 2.79$). Figure 17 illustrates the distribution of delivery dimension scores in the four years worked groups. Table 7 shows the means and standard deviation with 95% confidence intervals of the pairwise differences.

Table 7

Means and SD of Years Worked with 95% CI of Pairwise Differences (Delivery)

Years Worked	N	M	SD	0-5	6-10	11-15
0-5	84	11.88	2.87			
6-10	59	12.31	2.77	-.80 to 1.65		
11-15	72	12.26	2.72	-.77 to 1.54	-1.31 to 1.22	
16+	162	12.93	2.79	.08 to 2.01*	-.47 to 1.72	-.36 to 1.68

*indicates a significant difference
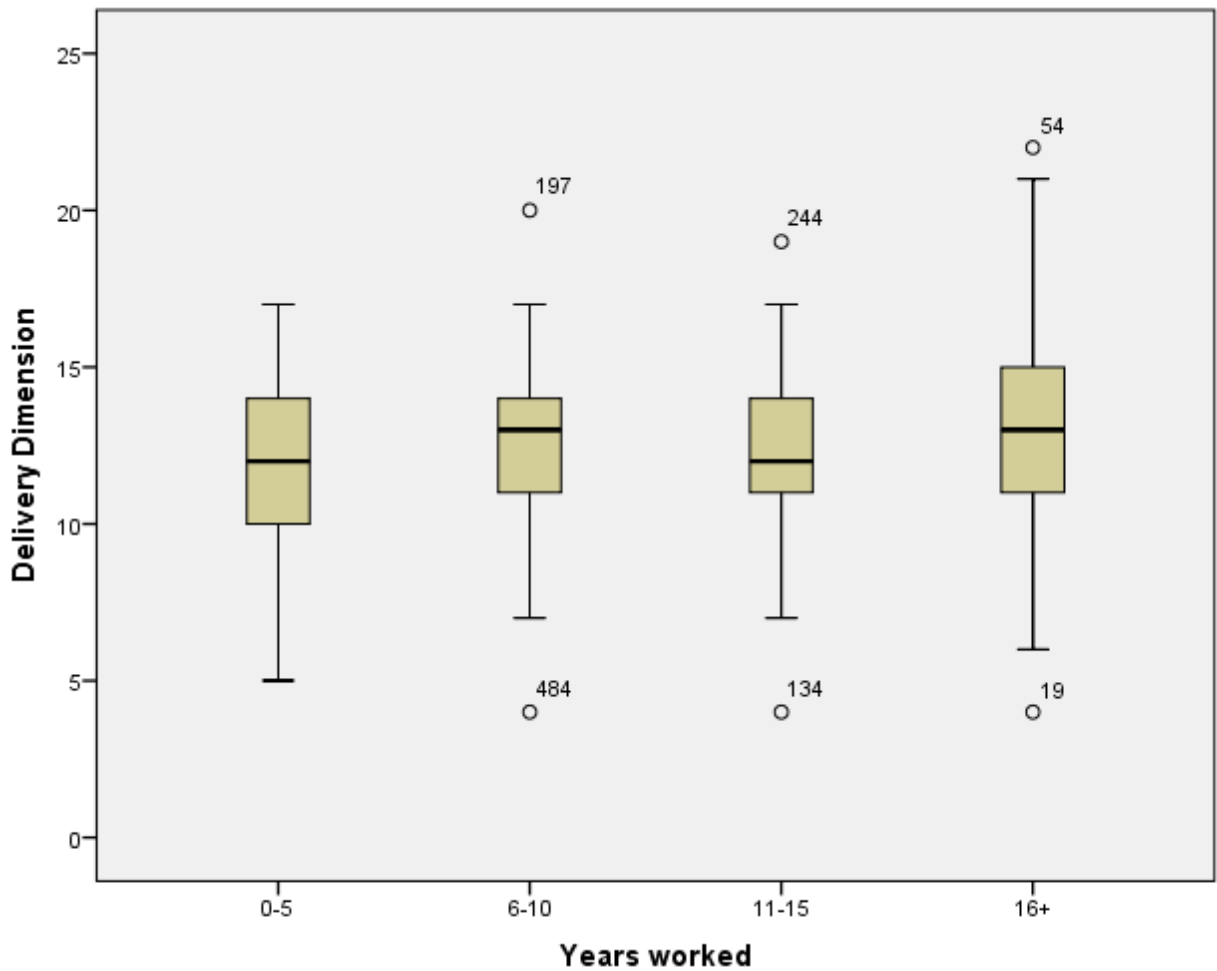
Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 17. Delivery by years of work experience for participating faculty members.

H_04_3: There is no significant difference in the mean scores of the visual arts survey on satisfaction dimension by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between satisfaction dimension and participating faculty member years worked groups (0-5, 6-10, 11-15, 16+). The independent variable was the years worked groups. The dependent variable was the satisfaction dimension. The ANOVA was not significant, $F(3, 377) = .54$, $p = .655$.

Therefore, the null hypothesis was retained. The strength of relationship between the satisfaction

dimension and the years worked of the faculty members was .01. Therefore, the effect size was

weak. Figure 18 illustrates the distribution of satisfaction dimension scores in the four years

worked groups. Table 8 shows the means and standard deviations in the satisfaction dimension

of the years worked groups.

Table 8

Means and SD of Years Worked in Satisfaction Dimension

Years Worked	N	M	SD
0-5	87	12.53	3.41
6-10	64	12.59	3.66
11-15	73	12.36	2.97
16+	157	12.10	2.96

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 18. Satisfaction by years of work experience for participating faculty members.

H_044: There is no significant difference in the mean scores of the visual arts survey on

student learning dimension by years of work experience for participating faculty

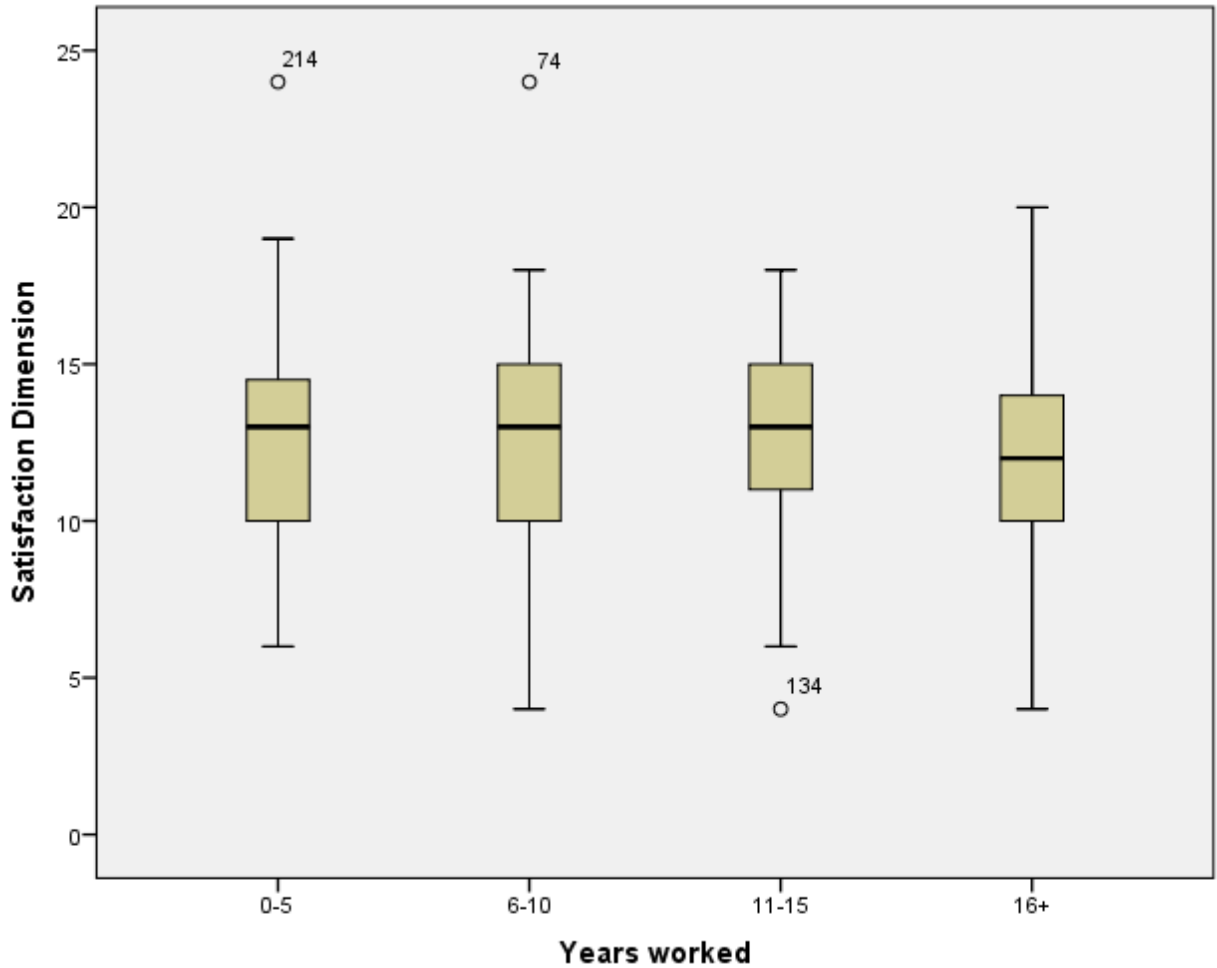members (0-5, 6-10, 11-15, and 16 years or more).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship

between student learning dimension and participating faculty member years worked groups (0-5,

6-10, 11-15, 16+). The independent variable was the years worked groups. The dependent

variable was the student learning dimension. The ANOVA was not significant,

$F(3, 375) = .43$, $p = .73$. Therefore, the null hypothesis was retained. The strength of relationship between the student learning dimension and the years worked of the faculty members was .01. Therefore, the effect size was weak. Figure 19 illustrates the distribution of student learning dimension scores in the four years worked groups. Table 9 shows the means and standard deviation in the student learning dimension of the years worked groups.

Table 9

Means and SD of years Worked Groups in Student Learning Dimension

Years Worked	N	M	SD
0-5	86	13.74	2.88
6-10	62	13.79	2.53
11-15	72	14.00	2.62
16+	159	14.13	3.07

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 19. Student learning by years of work experience for participating faculty members.

H_04_5: There is no significant difference in the mean scores of the visual arts survey on curriculum dimension by years of work experience for participating faculty members (0-5, 6-10, 11-15, and 16 years or more).
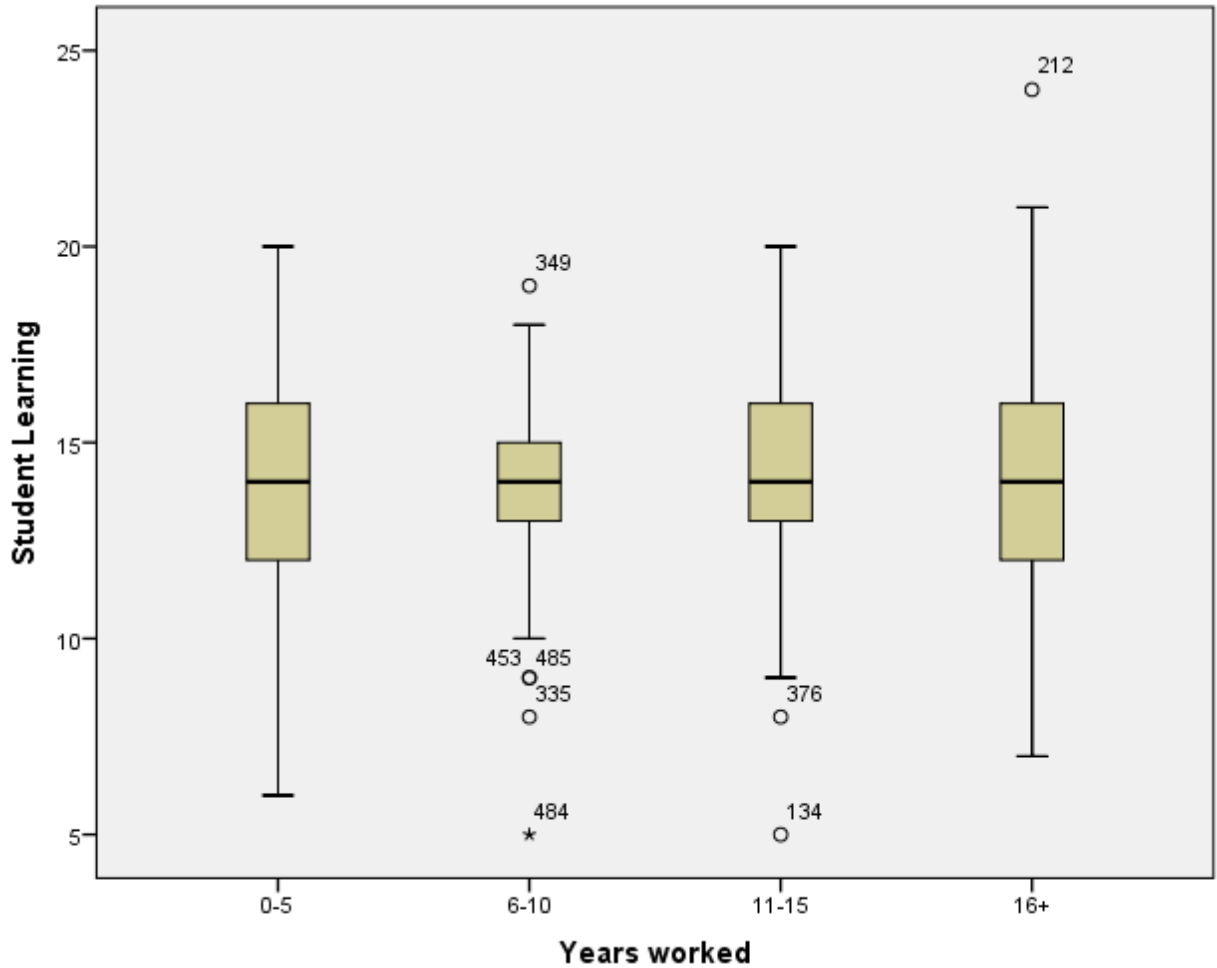
A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between curriculum dimension and participating faculty member years worked groups (0-5, 6-10, 11-15, 16+). The independent variable was the years worked groups. The dependent variable was the curriculum dimension. The ANOVA was not significant, $F(3, 381) = .41$, $p = .745$. Therefore, the null hypothesis was retained. The strength of relationship between the curriculum

dimension and the years worked of the faculty members was .01. Therefore, the effect size was weak. Figure 20 illustrates the distribution of curriculum dimension scores in the four years worked groups. Table 10 shows the means and standard deviations in the curriculum dimension of the years worked groups.

Table 10

Means and SD of Years Worked Groups in Curriculum Dimension

Years Worked	N	M	SD
0-5	90	14.67	3.26
6-10	62	15.26	3.54
11-15	69	14.77	3.52
16+	164	14.85	3.25
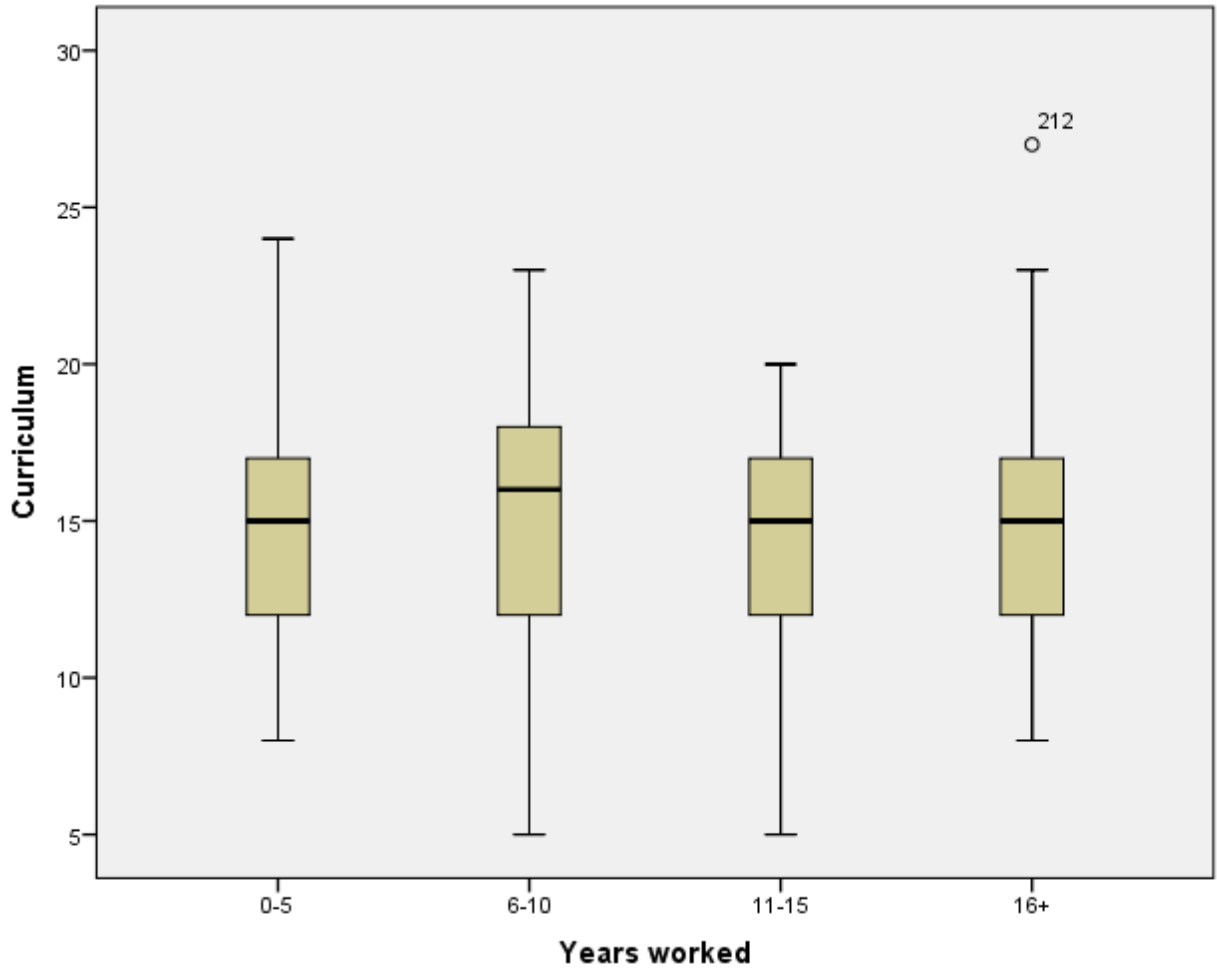
Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 20. Curriculum by years of work experience for participating faculty members.

Research Question 5

Are there significant differences in the mean scores on the visual arts survey for the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) by academic discipline area for participating faculty members (STEM, ELA, Fine Arts, Social Sciences)?

H_05_1: There is no significant difference in the mean scores of the visual arts survey on mentor dimension by academic discipline area for participating faculty members (STEM, ELA, Fine Arts, Social Sciences).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship between mentor dimension and participating faculty member academic discipline groups. The independent variable was the mentor dimension. The dependent variable was the academic discipline groups. The ANOVA was not significant, $F(3, 228) = 1.01$, $p = .390$. Therefore, the null hypothesis was accepted. The strength of relationship between the mentor dimension and the age of the faculty members was .01. Therefore, the effect size was small. Figure 21 illustrates the distribution of mentor dimension scores in the four academic discipline groups. Table 11 shows the means and standard deviations in the mentor dimension of the academic discipline groups.

Table 11

Means and SD of Academic Discipline Groups in Mentor Dimension

Academic Discipline	N	M	SD
STEM	104	12.43	2.03
ELA	60	12.50	1.91
Fine Arts	36	12.39	1.92
Social Sciences	32	13.09	2.07

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 21. Mentor dimension by academic discipline for participating faculty members.
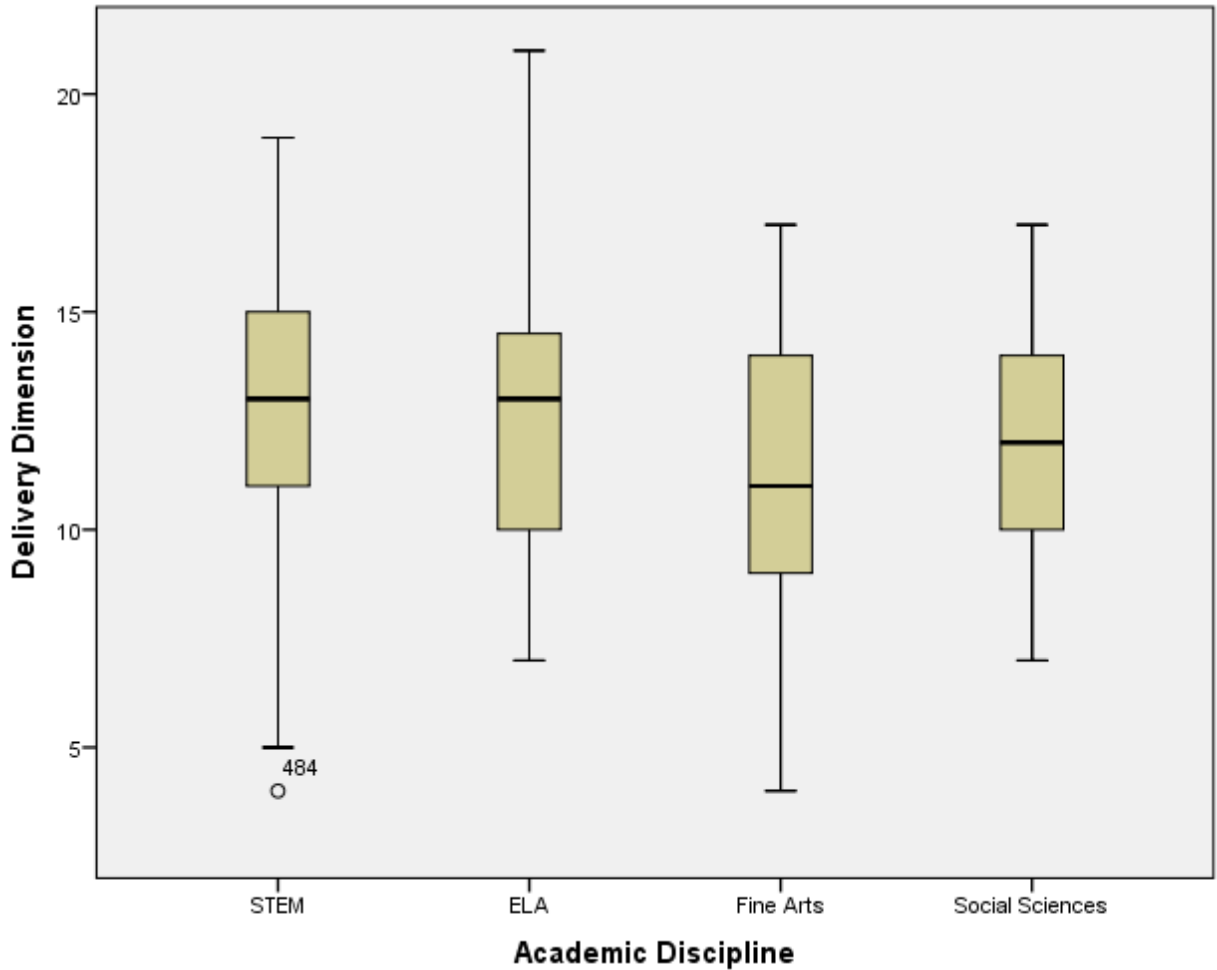
H_05_2: There is no significant difference in the mean scores of the visual arts survey on

delivery method dimension by academic discipline area for participating faculty members

(STEM, ELA, Fine Arts, Social Sciences).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship

between delivery dimension and participating faculty member academic discipline groups

(STEM, ELA, Fine Arts, Social Sciences). The independent variable was the academic discipline

groups. The dependent variable was the delivery dimension. The ANOVA was not significant,

$F(3, 231) = 1.51$, $p = .213$. Therefore, the null hypothesis was retained. The strength of

relationship between the delivery dimension and the years worked of the faculty members was .02. Therefore, the effect size was weak. Figure 22 illustrates the distribution of delivery dimension scores in the four academic discipline groups. Table 12 shows the means and standard deviations in the delivery dimension of the academic discipline groups.

Table 12

Means and SD of Academic Discipline Groups in Delivery Dimension

Academic Discipline	N	M	SD
STEM	104	12.74	2.85
ELA	63	12.51	3.06
Fine Arts	38	11.61	3.12
Social Sciences	30	12.17	2.46

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 22. Delivery dimension by academic discipline for participating faculty members.

H_05_3: There is no significant difference in the mean scores of the visual arts survey on

satisfaction dimension by academic discipline area for participating faculty members
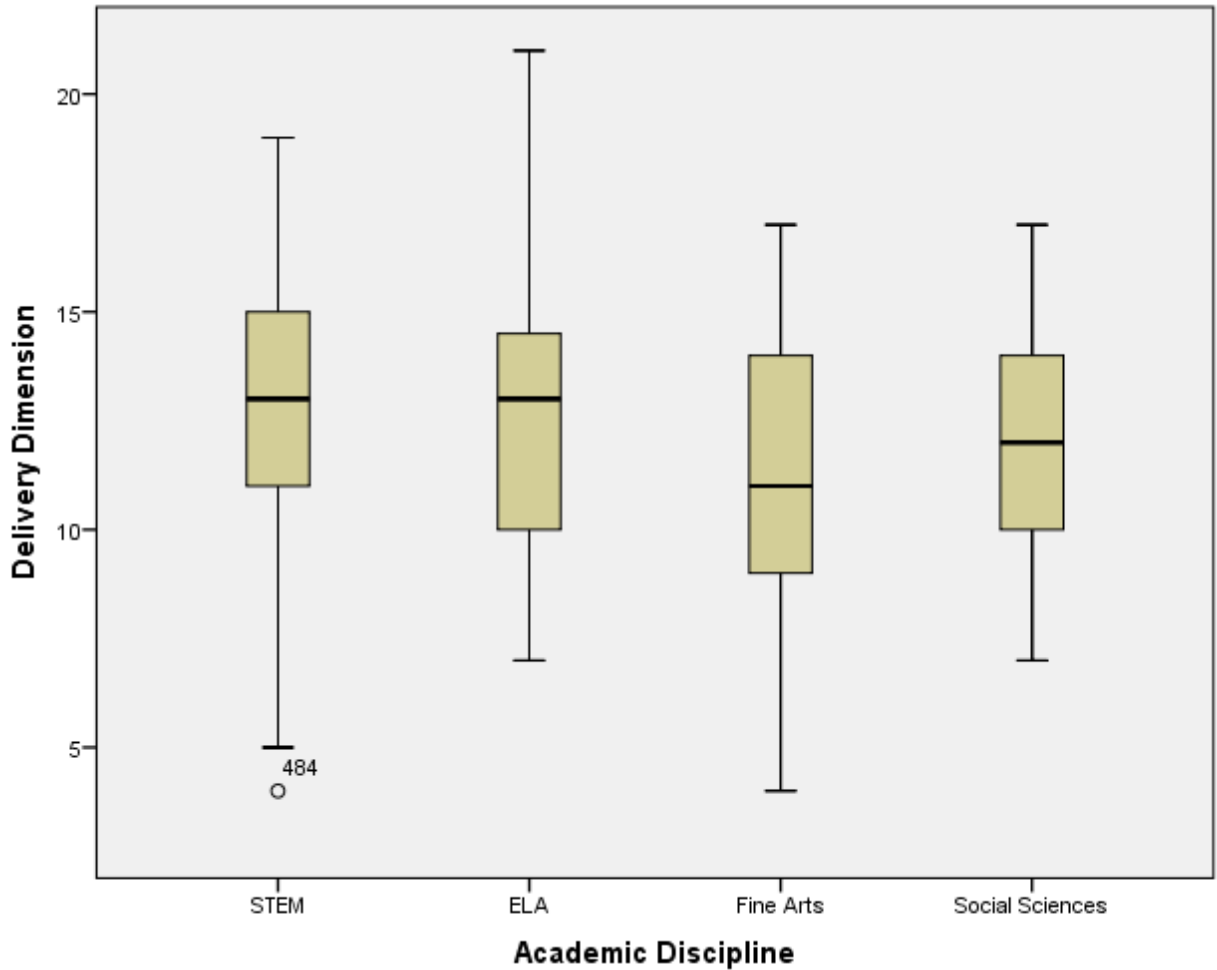
(STEM, ELA, Fine Arts, Social Sciences).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship

between satisfaction dimension and participating faculty member academic discipline groups.

The independent variable was the academic discipline groups. The dependent variable was the

satisfaction dimension. The ANOVA was significant, $F(3, 238) = 2.91$, $p = .035$. Therefore, the

null hypothesis was rejected. The strength of relationship between the satisfaction dimension and the academic discipline group of the faculty members was .04. Therefore, the effect size was small. Follow-up tests were conducted to evaluate pairwise differences among the means. Because the variances among the four groups ranged from .029 to 1.000, variances were assumed to be heterogeneous. The Tukey HSD procedure was used to control for Type I error across the pairwise comparisons. Two groups were found to be significantly different from all others ($p < .05$). Participants in the STEM group (M = 12.52, SD = 3.29) showed a significant variance from participants in the Fine Arts group (M = 10.79, SD = 3.44). Participants in the Fine Arts group showed a significant variance from the Social Sciences group (M = 12.39, SD = 3.19). Figure 23 illustrates the distribution of satisfaction dimension scores in the four academic discipline groups. Table 13 shows the means and standard deviations with 95% confidence intervals of the pairwise differences.

Table 13

Means and SD of AD with 95% CI of Pairwise Differences (Satisfaction)

Academic Discipline	N	M	SD	STEM	ELA	Fine Arts
STEM	109	12.52	3.29			
ELA	64	12.55	3.30	-1.32 to 1.37		
Fine Arts	38	10.79	3.44	-3.34 to -.12*	-3.51 to -.01*	
Social Sciences	31	12.39	3.19	-1.88 to 1.60	-2.03 to 1.71	-.47 to 3.67

*indicates a significant difference
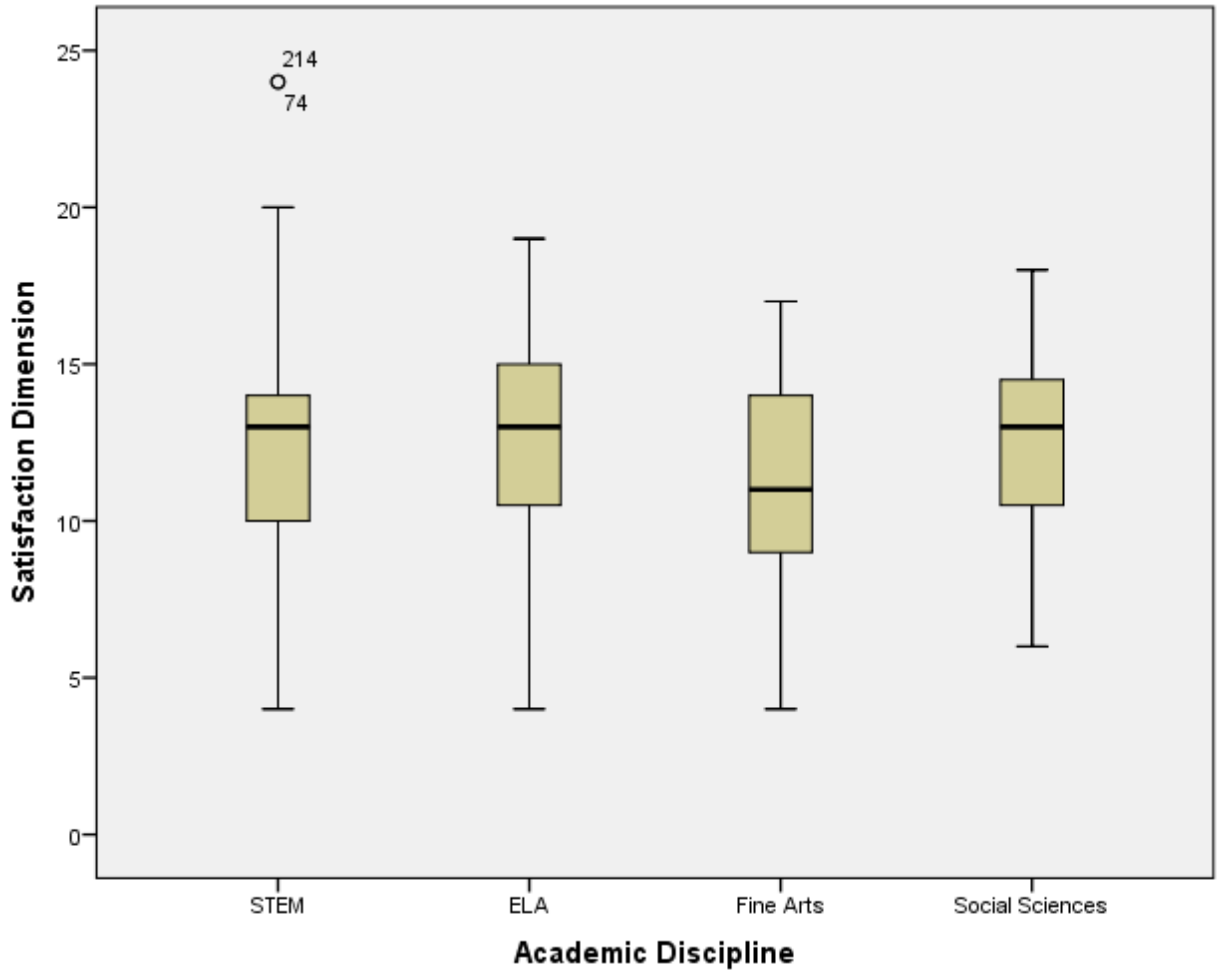
Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 23. Satisfaction dimension by academic discipline for participating faculty members.

H$_0$5$_4$: There is no significant difference in the mean scores of the visual arts survey on

student learning dimension by academic discipline area for participating faculty members

(STEM, ELA, Fine Arts, Social Sciences).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship

between student learning dimension and participating faculty member academic discipline

groups (STEM, ELA, Fine Arts, Social Sciences). The independent variable was the academic

discipline groups. The dependent variable was the student learning dimension. The ANOVA was

not significant, $F(3, 230) = 2.57$, $p = .055$. Therefore, the null hypothesis was retained. The strength of relationship between the student learning dimension and the academic discipline of the faculty members was .03. Therefore, the effect size was weak. Figure 24 illustrates the distribution of student learning dimension scores in the four academic discipline groups. Table 14 shows the means and standard deviations in the student learning dimension of the academic discipline groups.

Table 14

Means and SD of Academic Discipline Groups in Student Learning Dimension

Academic Discipline	N	M	SD
STEM	103	13.94	2.89
ELA	63	14.40	3.04
Fine Arts	35	12.83	2.57
Social Sciences	33	14.42	2.84

Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 24. Student learning by academic discipline for participating faculty members.

H$_0$5$_5$: There is no significant difference in the mean scores of the visual arts survey on

curriculum dimension by academic discipline area for participating faculty members
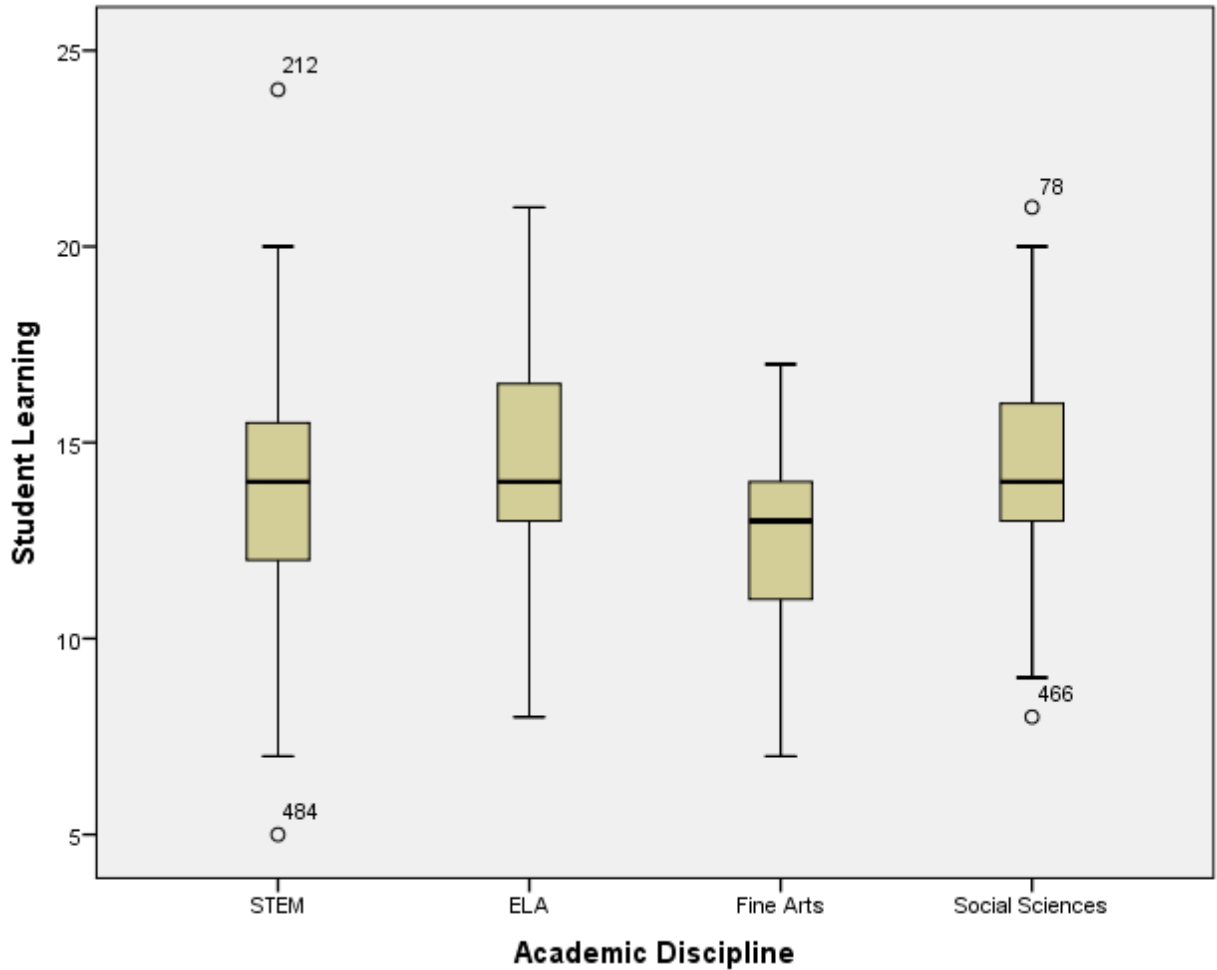
(STEM, ELA, Fine Arts, Social Sciences).

A one-way analysis of variance (ANOVA) was conducted to evaluate the relationship

between curriculum dimension and participating faculty member academic discipline groups.

The dependent variable was the curriculum dimension. The dependent variable was the academic

discipline groups (STEM, ELA, Fine Arts, Social Sciences). The ANOVA was significant,

$F(3, 242) = 4.45$, *p* = .005. Therefore, the null hypothesis was rejected. The strength of

relationship between the curriculum dimension and the academic curriculum group of the faculty

members was .05. Therefore, the effect size was small. Follow-up tests were conducted to

evaluate pairwise differences among the means. Because the variances among the four groups

ranged from .006 to .938, variances were assumed to be heterogeneous. The Tukey HSD

procedure was used to control for Type I error across the pairwise comparisons. Two groups

were found to be significantly different from all others (p < .05). Participants in the STEM group

(M = 15.37, SD = 3.16) showed a significant variance from participants in the Fine Arts group

(M = 13.39, SD = 3.04). Participants in the Fine Arts group showed a significant variance from

the STEM and Social Sciences group (M = 15.74, SD = 3.77). Figure 25 illustrates the

distribution of curriculum dimension scores in the four academic discipline groups. Table 15

shows the standard deviations with 95% confidence intervals of the pairwise differences.

Table 15

Means and SD of AD with 95% CI of Pairwise Differences (Curriculum)

Academic Discipline	N	M	SD	STEM	ELA	Fine Arts
STEM	110	15.37	3.16			
ELA	64	14.75	2.95	.60 to -1.92		
Fine Arts	38	13.39	3.04	.01 to -3.53*	.16 to -3.04	
Social Sciences	34	15.74	3.77	.938 to -1.25	.46 to -.76	.01 to .40*

*indicates a significant difference
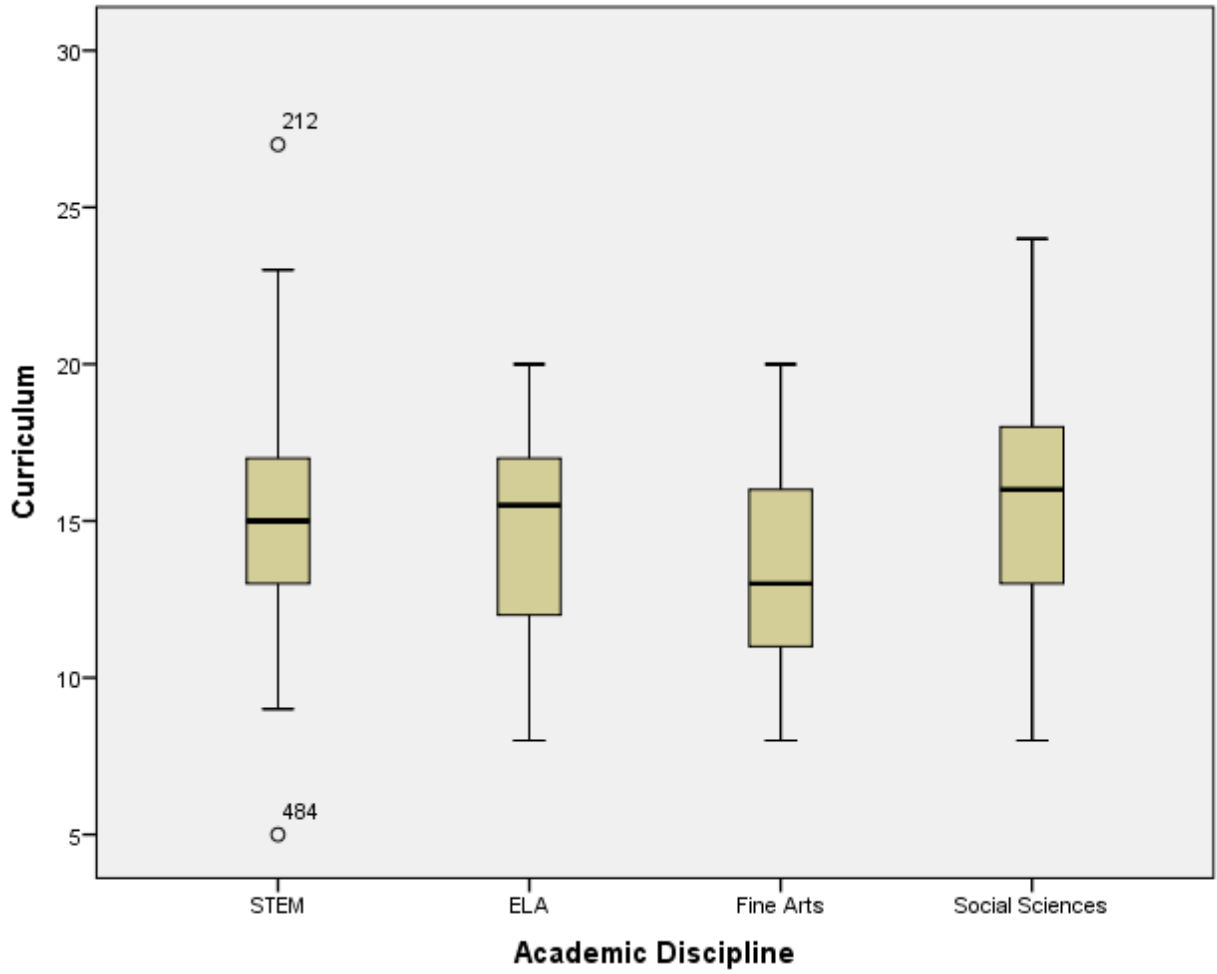
Note: o = an observation between 1.5 and 3.0 times the interquartile range

Figure 25. Curriculum dimension by academic discipline for participating faculty members.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR PRACTICE AND

FURTHER RESEARCH

This chapter contains a summary of the findings, conclusions, and recommendations. The purpose of this quantitative study was to investigate 9-12 faculty perceptions of online instruction compared to traditional face-to-face instruction regarding visual arts mentor, delivery method, satisfaction, student learning, and curriculum. Understanding how these variables are related to perceptions of online instruction compared to traditional face-to-face instruction in the field of visual arts could be helpful for readers as a resource when creating, implementing and teaching online courses. Participants of this study consisted of public high school teachers from selected southeastern United States in Florida, Georgia, North Carolina, Tennessee, and Virginia.

Summary of Findings

The sample of this study consisted of faculty members working at the public high schools where the administration accepted the request for research and provided the survey to the faculty member through an online link. The statistical analysis reported in the study was based on five research questions presented in Chapters 1 and 3. Each research question had five null hypotheses. The alpha level of .05 was used in all statistical tests. Findings indicate that in four out of five research questions presented there was statistical significance. Gender, as it relates to the five dimensions, was the only area of research where no statistical significance was found.

Research question 1 (H_01_1-H_01_5) was analyzed using an independent samples t-test to compare the mean scores on the five dimensions (mentor, delivery method, satisfaction, student learning and curriculum) between those who teach online and those who teach using traditional methods. This research showed statistically significant difference between the traditional and

online delivery methods in two out of the five dimensions. The traditional mentor dimension score was significantly higher than the online score. This indicates that mentoring is perceived to be found in traditional delivery method more often than it is found in an online delivery method. Research reinforcing the need for mentoring and training, Rice and Dawley (2007) stated that 62% of online teachers did not receive adequate training for an online environment. Leary et al. (2014) theorized how important reflection with peers, assessment conversations, and online professional development were to supporting teachers when asked to teach online. The NEA board of directors provided online teaching standards that emphasized the need for professional development specific to online teaching.

The curriculum dimension in the traditional delivery method score is lower than the online delivery method score. This indicates that perceptions of faculty members in traditional settings view curriculum development differently than online faculty. According to Rosenthal (2010) several areas of reinvention need to occur when creating an online classroom different from a traditional model. Video interaction and discussion board entries are examples of curriculum design that are done differently in online compared to traditional classrooms. See table 16 for a summary of all findings in Research Question 1. Table 16 shows a summary of findings from research question 1.

Table 16

Summary of Findings: Research Question 1

Dimension	M	SD	*T*	*P*
Mentor			4.78	<.001*
Online	11.59	2.15		

Table 16 (continued)

Traditional	12.69	1.91		
Delivery			-1.41	.159
Online	12.77	3.19		
Traditional	12.31	2.53		
Satisfaction			.95	.344
Online	12.11	3.16		
Traditional	12.46	3.15		
Student Learning			.10	.924
Online	13.98	2.59		
Traditional	15.01	2.87		
Curriculum			-3.30	<.001*
Online	15.77	3.45		
Traditional	14.49	3.28		

*indicates statistical significance

Research question 2 (H_021-H_025) was analyzed using one-way analyses of variance (ANOVA). The grouping variable comprised of the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum). The independent variable was the six age group categories (20-28, 29-34, 35-42, 43-50, 51-59, 60+) and the dependent variables were those that teach online and those that teach using traditional methods. Two out of five dimension groups were statistically significant.

There is statistical significance in the delivery dimension in the pairwise groupings; 22-28 age group with the 51-59 age group, the 29-34 age group with the 51-59 age group, the 35-42

age group with the 43-50 age group as well as the 51-59 age group, and the 51-59 age group with the 60+ age group. In this research the 51-59-year-old faculty member group showed the greatest differences in all age groups. This finding indicated that older faculty members compared with younger have differences in perceptions in the type of delivery importance. In previous research Inan and Lowther (2010) examined the effects of teachers' individual characteristics and environmental factors on teachers' technology integration. Their study suggested that teachers' readiness had the highest total effect on technology integration. Teachers' demographic characteristics in areas that included years of teaching and age negatively affected their computer proficiency. As age and years of experience increased computer proficiency decreased. Teachers' computer proficiency positively influenced their technology integration. In a contrasting study Seaman (2009) found that senior faculty and younger faculty members are equally involved in embracing online instruction even though the younger teachers have a better understanding and acceptance of technology.

In the student learning dimension there was no statistical significance. This indicates that although student learning perceptions differ by age there is no specific age grouping pair where the perceptions are markedly different.

Research question 3 (H_03_1-H_03_5) was analyzed using a series of independent samples *t*-test to compare the grouping variable comprised of the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum), between the dependent variable of gender (male and female) for participating faculty members.

There was no statistically significant difference found in any of the dimensions for gender. This was surprising because previous studies have shown gender differences in this area. A good example that illustrates gender difference findings is a study by Seaman (2009). Seaman

found that females are more likely than males to both develop and teach online courses. Table 17

shows a summary of findings from research question 3.

Table 17

Summary of Findings: Research Question 3

Dimension	M	SD	t	p
Mentor			.60	.545
Female	12.34	1.99		
Male	12.20	2.20		
Delivery			.74	.461
Female	12.39	2.95		
Male	12.62	2.59		
Satisfaction			-.33	.740
Female	12.28	3.27		
Male	12.39	3.05		
Student Learning			-1.50	.135
Female	13.78	2.85		
Male	14.24	2.91		
Curriculum			-1.09	.275
Female	14.71	3.26		
Male	15.11	3.53		

Research question 4 (H_04_1-H_04_5) was analyzed using a one-way analyses of variance

(ANOVA). The grouping variable comprised the five dimensions (mentor, delivery method,

satisfaction, student learning, and curriculum), and the independent variable four categories of years of work experience (0-5, 6-10, 11-15, 16+). In the delivery dimension there was statistical significance. The pairwise comparison revealed significance in the 0-5 years worked with the 16+ years worked. This finding appears to correlate with Research Question 2 statistical significance in the delivery method dimension with the age of the faculty member because most often older teachers have more years of teaching. In the book *Becoming a Teacher,* the evidence of changes in educational issues are found specifically in the ninth edition (Parkay, Stanford, & Gougeon, 2010). There are several sections found in the ninth edition covering subjects ranging from "today's technology' through how to integrate technology into today's learning environment. These items were not present when senior faculty members were new to the profession. In opposing literature, Overbay, Mollette, and Vasu (2011) posited that younger teachers are more connected digitally than their senior counterparts; however, we cannot assume that they are better at using technology in an educational setting. Finally, teacher beliefs about technology are good predictors in using technology in a classroom setting (Miranda & Russell, 2012; Zhao & Frank, 2003).

Research question 5 (H_05_1-H_05_5) was analyzed using a one-way analyses of variance (ANOVA). The grouping variable comprised the five dimensions (mentor, delivery method, satisfaction, student learning, and curriculum), and the independent variable four categories of academic discipline area (STEM field, ELA, Fine Arts, and Social Science).

The satisfaction dimension was found to be statistically significant. In pairwise comparison there was significance found between the STEM and Fine Arts as well as, ELA and Fine Arts. Significance was found in the curriculum dimension. Pairwise comparison revealed a

significance between STEM and Fine Arts in the dimension of curriculum. It is important to note that in all three areas of significance Fine Arts was in each pair.

Perceptions of the satisfaction and curriculum dimensions in teaching visual arts in an online delivery method were seen clearly in the responses from question 32 of the survey data for this study (detailed below). Mishook and Kornhaber (2006) found that arts integration was often used with technology to introduce, upgrade, and augment learning not only in the arts but other subject areas that contradicts the pairwise comparisons found in this study. Supporting the findings from this research question, Knowles and Kerman conducted a study in 2007 and discovered that online visual arts courses received more information and learned more than they expected in an online delivery visual arts course. Reinforcing perceptions from other academic areas on teaching the visual arts online included the results from two separate studies by Black and Browning (2011) and Delacruz (2009) that found key factors that contributed to art teachers' reluctance at applying new technology to their teaching included software difficulties, increased stress heavier teaching loads time constraints, shortage of software, and lack of teacher support and training.

Question 30 and 31 of the online survey were designed for ranking of the top three teaching methods comparing traditional and online school settings. The top three traditional teaching methods were Differentiated Instruction (66.42%), Small group (62.77), and One-on-one demonstration (53.77%). The top three online teaching methods were Video teacher designed (77.83%), Differentiated Instruction (54.43%), and Class discussion (31.28%). Differentiated Instruction was found in both ranked groups which demonstrates the importance in any classroom setting of providing student choices in curriculum content and assessment.

Question 32 of the online survey was designed for open-ended response asking opinions about teaching art using an online delivery system. There were 267 responses that this researcher coded and placed in four categories; not online art, ok to teach art online, only part art ok online and other. Thirty-nine percent of the respondents answered that art is a subject that should not ever be taught in an online setting.

The respondents in the category, "not online art", included statements, "Starting this process is going to kill face to face education.", "I think there would be problems with students connecting with the art.", "Online classes tempt students to take short cuts and miss out on wonderful, meaningful critical experiences in the realm of art.", and "I believe it would be difficult to achieve the same level of proficiency in creating art when trying to learn it all online."

Twenty-nine percent of the respondents stated that it is okay to teach in an online delivery method. Responses in the "okay to teach online" category included, "The curriculum or objectives to be met by the students and the teacher's interest and skills in online art teaching will have a great influence on the effectiveness on online delivery."," In my opinion teaching art online is the same as any other discipline. The curricular goals are the same but the design of curriculum will need to be adjusted for more autonomy in the student.", "Art classes online help students to gain tools of experiences in being creative in their problem solving skills, advancement in their thoughts and ideas, maintain focus, and allow them to be accountable for their own assignments.", and "If Bob Ross can teach thousands to paint happy little trees without ever being in the same room, a quality teacher committed to the students and the craft can surely figure out a way, in today's technological society, to make online art successful."

Eighteen percent of the respondents answered only art history and not art making should be taught in an online delivery method. The respondents in this category felt a split in the subject matter was important, "Art unless it is an art appreciation or history course, in my opinion is best taught face to face, in order to provide a more individualized approach to the art making process."

Conclusion

Based on the statistical significance found in Research Question 1 this researcher believes that mentors should be mandatory in all online teaching situations. Mentors should not only be used when a teacher is new to a school system. Mentoring is both beneficial for the teacher that is learning how to navigate in a new way and the teacher who is "supporting" the new skills needed to succeed in a new delivery method.

Curriculum design is perceived to be different when teaching online versus in a traditional classroom. This researcher has personal experience in this area and in designing course curriculum (and subsequently teaching art online) there are different areas that become important; student interactions, student-teacher interactions, and time management are some of the area where online is very different from traditional.

This researcher concludes that age of the teacher in the delivery dimension and faculty members who have been teaching for 16+ years may have preconceived perceptions about online delivery compared to those who are new to the profession or younger. Older teachers who have taught many years but did not grow up using technology and may not be adept at integrating it into their teaching world in the same way as younger teachers may have negative perceptions about online delivery. Many college programs offer technology as part of their curriculum, and

those newer teachers may have been exposed to online teaching in college. They also have grown up with computers and many have taken online courses themselves.

Results of perceptions in online visual arts by gender in Research Question 3 was very surprising to this researcher. Because this researcher is from the end of the "baby boomer generation" where woman and men have traditionally held different perceptions in many areas due to societal roles, it was assumed that there would be some statistical significance in traditional versus online teaching. This did not occur and the results may possibly reflect the current equality in gender found in many areas of the 21st century.

The statistical differences found in the academic discipline areas Research Question 5 reinforce the need for peer education surrounding how the visual arts (and other specialty subject areas) are taught and the satisfaction levels of the teacher. The STEM area difference was not surprising to this researcher. The ELA area seems closer to the Fine Arts than any other subject, yet that area did not see the same satisfaction could be found teaching online visual arts as in teaching visual arts in a traditional way. This researcher is fortunate enough to teach both traditional and online with equal satisfaction and is constantly asked about the differences by other teachers, administrators, and the general public.

<u>Recommendations for Practice</u>

The findings and conclusions of this research project have led to the following recommendations for practice:

1. All faculty members regardless of teaching delivery method (traditional and online) are recommended to participate in mentoring.

2. Administrators should provide professional development opportunities specific to online curriculum development for themselves and their faculty members. A whole school-system

approach would create the foundation for all members to interact and create stronger curriculum across the system. Databases of curriculum ideas, rubric design, and other areas of pedagogy would allow for seamless transitions between delivery method.

3. It is recommended that visual arts faculty members and other faculty members who teach courses where perceptions of online delivery are negatively portrayed (music, physical education, labs) to provide professional development online presentations for the general faculty population. Video presentations would allow other stakeholders to see how actual coursework is done in those areas to dispel the idea that it cannot be done effectively.

4. A school system level survey addressing teacher satisfaction could be given to all teachers. Results from the survey could be shared with the administration and faculty, which would provide for an open discussion about increasing teacher satisfaction. It would also provide the administration with areas for improvement.

5. Students learn in a variety of ways and it is recommended that faculty members are provided with professional development opportunities that address the differences in learning delivery methods to ensure successful transition from traditional to online delivery. Open discussions may include areas such as time management, organization skills, technology familiarity, and social interaction for both the teacher and student could be included.

<u>Recommendations for Future Research</u>

1. A larger sample size that included more school systems and high schools would provide an expansive experience to study the perceptions of a larger number of faculty members.

2. A larger sample size that included more states (this study only had five southeastern states included) would provide an opportunity to study the perceptions of faculty members by geographic areas in the United States.

3. A study that included students and administrators as well as teachers would provide an opportunity to study the perceptions and create comparative study between groups.

4. A qualitative study could be conducted by future researchers. Teacher interviews either in person or online) would be a way to obtain more in-depth information regarding their perception of visual arts (and other subjects) in online education.

5. Future researches could consider conducting a comparative study focusing on perceptions by adding other areas of the arts (this study was limited to visual arts) to include music, and theatre education.

6. Time of year should be considered when administering survey instruments to high school faculty members. Time of state testing, beginning or end of school year and scheduled vacation will most likely yield lower participatory rates.

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APPENDICES

APPENDIX A: IRB Approval Letter

EAST TENNESSEE STATE
UNIVERSITY

Office for the Protection of Human Research Subjects • Box 70565 • Johnson City, Tennessee 37614-1707
Phone: (423) 439-6053 Fax: (423) 439-6060

IRB APPROVAL – Initial Exempt

April 4, 2016

Karen Fine
10 Preakness Way
Telford, TN 37690

RE: Online Education: The Relationship Between the Perceptions of Online High
School Teachers Compared to Traditional Classroom Teachers Regarding the Visual Arts
IRB#: c0316.22e
ORSPA#: ,

On **April 4, 2016**, an exempt approval was granted in accordance with 45 CFR 46.
101(b)(2). It is understood this project will be conducted in full accordance with all
applicable sections of the IRB Policies. No continuing review is required. The exempt
approval will be reported to the convened board on the next agenda.

- new protocol submission xForm, references, PI resume, informed consent
  document, administrator initial email, administrator follow up letter, administrator
  approval letter, administrator reminder email, participant letter with link, survey

**Projects involving Mountain States Health Alliance must also be approved by
MSHA following IRB approval prior to initiating the study.**

Unanticipated Problems Involving Risks to Subjects or Others must be reported to the
IRB (and VA R&D if applicable) within 10 working days.

Proposed changes in approved research cannot be initiated without IRB review and
approval. The only exception to this rule is that a change can be made prior to IRB
approval when necessary to eliminate apparent immediate hazards to the research
subjects [21 CFR 56.108 (a)(4)]. In such a case, the IRB must be promptly informed of
the change following its implementation (within 10 working days) on Form 109
(www.etsu.edu/irb). The IRB will review the change to determine that it is consistent
with ensuring the subject's continued welfare.

Sincerely,
Stacey Williams, Chair
ETSU Campus IRB

Cc: James Lampley, Ph.D.

APPENDIX B: IRB Approval Letter Modified

EAST TENNESSEE STATE UNIVERSITY

Office for the Protection of Human Research Subjects • Box 70565 • Johnson City, Tennessee 37614-1707
Phone: (423) 439-6053 Fax: (423) 439-6060

IRB APPROVAL – Minor Modification

April 21, 2016

Karen Fine
10 Preakness Way
Telford, TN 37690

RE: Online Education: The Relationship Between the Perceptions of Online High School
       Teachers Compared to Traditional Classroom Teachers Regarding the Visual Arts

IRB #:   c0316.22e

On April 21, 2016, a final approval was granted for the minor modification listed below. The minor modification will be reported to the convened board on the next agenda.

- Modification xForm to: add external study sites from FL, GA, NC, TN, and VA

Unanticipated Problems Involving Risks to Subjects or Others must be reported to the IRB (and VA R&D if applicable) within 10 working days.

Proposed changes in approved research cannot be initiated without IRB review and approval. The only exception to this rule is that a change can be made prior to IRB approval when necessary to eliminate apparent immediate hazards to the research subjects [21 CFR 56.108 (a)(4)]. In such a case, the IRB must be promptly informed of the change following its implementation (within 10 working days) on Form 109 (www.etsu.edu/irb). The IRB will review the change to determine that it is consistent with ensuring the subject's continued welfare.

Sincerely,
Stacey Williams, Chair
ETSU Campus IRB

APPENDIX C: Administrator Permission Letter

Dear Administrator,

My name is Karen A. Fine, and I am a doctoral student at East Tennessee State University. I am working on my Educational Leadership degree with a focus in school leadership. In order to finish my studies, I need to complete a research project. The name of my research study is "Online Education: The Relationship between the Perceptions of Online High School Teachers Compared to Traditional Classroom Teachers Regarding the Visual Arts".

The purpose of this study is to determine if there are significant differences in the mean scores on a visual arts survey between the dimensions (mentor, delivery method, satisfaction, student learning, and curriculum) between faculty members that teach online and those that teach using traditional methods. I will also investigate differences between age group, gender, years of work experience and academic discipline areas.

I would like to give a brief survey to all high school teachers in your school system using SurveyMonkey. It should only take about 15 minutes to complete. They will be asked questions about teacher mentoring, including the visual arts in online teaching, student learning, curriculum design and demographic information. This study may benefit our current educational direction by providing more information about including the visual arts (or music, theatre, and other similar) in online programs and overcoming any negative perceptions.

Your confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties, as is the case with emails. Specifically, Survey Monkey has security features that will be enabled: IP addresses will not be collected and SSL encryption software will be utilized. In other words, we will make every effort to ensure that your high school teachers name is not connected with their responses Although your rights and privacy will be maintained, the ETSU IRB (for non-medical research) and personnel particular to this research, Karen A Fine and Dr. James Lampley, have access to the study records.

If you do not want your teachers to fill out the survey, it will not affect your school system in any way. They may skip any questions they do not wish to answer or they can simply exit the online survey form once they start the survey if they wish to remove themselves entirely.

Participation in this study is voluntary. You (or the individual teacher) may refuse to participate. The participant can quit at any time. If they quit or refuse to participate, the benefits to which you are otherwise entitled will not be affected.

If you have any research-related questions or problems, you may contact me, Karen A. Fine at (423) 329-6003. I am working on this project under the supervision of Dr. James Lampley. You may reach him/her at (423) 439-7619. Also, the chairperson of the Institutional Review Board at East Tennessee State University is available at (423) 439-6054 if you have questions about your rights as a research subject. If you have any questions or concerns about the research and want

To talk to someone independent of the research team or you can't reach the study staff, you may call the IRB Coordinator at (423) 439-6055 or (423) 439-6002.

PLEASE respond to this email with the word AGREE for authorization of this study.

Once I receive your AGREE email I will send the survey link directly to you. If you would prefer that I send the link to another person (IT director, principal, etc.) please provide me with their email address.

Sincerely,

Karen A Fine

APPENDIX D: Survey

Welcome to the Teacher Survey

This survey is being conducted for research purposes as part of a dissertation in the Educational Leadership (ELPA) department at East Tennessee State University.

Participation in this survey is completely voluntary. You must be 18 years of age or older to participate in this survey. Your school administrator has approved the use of this survey. If you do not want to fill out the survey it will not affect you in any way. You may skip questions you do not wish to answer.

If you choose to participate in this survey your answers will be anonymous. No individual data will be reported in any manner. Your confidentiality is very important and your IP address will not be collected. SurveyMonkey has enabled SSL encryption software to be used when transferring your answers.

If you have any questions please contact Karen Fine at (423) 329-6003 or at finek1@goldmail.etsu.edu

Below are questions regarding your opinions and perceptions about online visual art courses. Please answer all questions honestly and to the best of your ability.

Thank you for participating in this survey. Your feedback is very important to the success of my research.

It will take about 15 minutes to complete this survey. By clicking the NEXT button you are voluntarily choosing to participate in this survey.

Your Teaching Background

For questions 1-7 please click on your response or fill in the blank with your answer.

1. What is your academic discipline area?

- ☐ STEM field
- ☐ ELA (english language arts), Humanities
- ☐ Fine Arts
- ☐ Social Science
- ☐ Health related
- ☐ Other (please specify)

  [   ]

2. What grade level do you teach? (Check all that apply)

- ☐ K-5
- ☐ 6-8
- ☐ 9-12
- ☐ Other (please specify)

  [   ]

3. How many years have you been teaching?

- ○ 0-5
- ○ 6-10
- ○ 11-15
- ○ 16+

4. What is the delivery method of the classes you teach?

- ○ Traditional (all taught in a classroom)
- ○ Blended (some online components)
- ○ Online (guided online learning with no traditional classroom)
- ○ Asynchronous Online (students go at their own pace in module setting, no traditional classroom)
- ○ Other (please specify)

[ ]

5. What is your current age category? (in years)

- ○ 22-28
- ○ 29-34
- ○ 35-42
- ○ 43-50
- ○ 51-59
- ○ 60-68
- ○ 69+

6. What is your gender?

- ○ female
- ○ male

7. If you have taught in a traditional school setting did you have a faculty mentor when you started teaching?

- ○ yes
- ○ no
- ○ I have never taught in a traditional school setting
- ○ Other (please specify)

[ ]

8. If you have taught in a blended learning setting did you have a faculty mentor when you started teaching?

○ yes

○ no

○ I have never taught in a blended learning school setting

○ Other (please specify)

9. If you have taught in an online or asynchronous online learning setting did you have a faculty mentor when you started teaching?

○ yes

○ no

○ I have never taught in an online or asynchronous school setting

○ Other (please specify)

Opinions about online teaching

In the following situations please choose the best representation of your opinion about online teaching. Strongly Agree, Somewhat Agree, Agree, Disagree, Somewhat Disagree, Strongly Disagree.

10. Special training, that includes ways to teach online courses are linked to higher job satisfaction.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

11. Special training that includes ways to teach online courses is linked to student learning.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

12. Students learn more in a traditional setting (in a classroom) compared to an online setting.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

13. Some areas of curriculum should *not* be taught in an online setting.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

Please specify any areas that should not be taught in an online setting

[   ]

14. Subjects with "hands-on" components of their curriculum (ie. music, theatre, art, physical education, science) should only be taught in a traditional classroom setting.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

15. All new or first time online teachers should have a faculty mentor (no matter how long they have been teaching).

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

16. Participating in teacher training may address "how to online teach" increases student understanding of the course.

Strongly Agree   Somewhat Agree   Agree   Disagree   Somewhat Disagree   Strongly Disagree

   ◯   ◯   ◯   ◯   ◯

17. All school systems should provide online education as an alternative for their public high school students to increase student learning.

Strongly Agree   Somewhat Agree   Agree   Disagree   Somewhat Disagree   Strongly Disagree

   ◯   ◯   ◯   ◯   ◯   ◯

Opinions of online visual art

In the following situations please choose the best representation of your opinion about online visual arts. Strongly Agree, Somewhat Agree, Agree, Disagree, Somewhat Disagree, Strongly Disagree.

18. It is more important for online art teachers to have mentors than traditional face-to-face art teachers no matter how many years they have been teaching.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

19. Teachers that work in traditional face-to-face art classrooms probably have higher job satisfaction than online art teachers.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

20. All school systems should provide online art or other enrichment curriculum courses as an alternative for public high school students that lack graduation credits.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

21. Teaching art should be done face-to-face in a classroom setting to be effective.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

22. The same course design (curriculum) should be used when teaching art online that is used in a traditional face-to-face design.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

23. Any art related credits for graduation should be waived if the student takes all of their courses in an online setting.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

24. Art Appreciation (without art making) should be the only area of the art curriculum taught online.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

25. Online art teachers have lower job satisfaction due to less face-to-face interaction with their students.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

26. Online art teachers do not have the same student learning expectations in their course design as traditional face-to-face art teachers.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

27. Online art teachers have lower job satisfaction due to less interaction with their colleagues.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

28. Teaching art online is probably more difficult than in a traditional classroom setting.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

29. Online art teachers should always make their own demonstration videos to connect with the students.

Strongly Agree	Somewhat Agree	Agree	Disagree	Somewhat Disagree	Strongly Disagree
○	○	○	○	○	○

For questions 29 & 30 please rank the type of teaching methods by checking your top three in the box provided.

30. What type of teaching methods are most important in a traditional art classroom? (Check your top 3)

☐ Lecture

☐ Video (teacher designed)

☐ Video (from internet)

☐ Small group

☐ Differentiated Instruction (student led with choices)

☐ Class discussion

☐ Silent Reading

☐ One-on-one demonstration

31. What type of teaching methods are most important in an online art classroom.?(Check your top 3)

☐ Lecture

☐ Video (teacher designed)

☐ Video (from internet)

☐ Small group

☐ Differentiated Instruction (student led with choices)

☐ Class discussion

☐ Silent Reading

☐ One-on-one demonstration

Your thoughts

In this section please answer the questions with a written (typed) response.

32. What are your opinions about teaching art online using an online delivery method? Please think about areas such as curriculum design, and teacher satisfaction. (write as much as you want in this comment)

APPENDIX E: List of Participating States

State Name	Number of Schools	Rank # Schools	Total number of Students	Rank # Students	Total number of Teachers	Rank # Teachers
Alabama	1640	6	746,204	6	47,162	6
Arkansas	1126	10	489,979	11	34,933	10
Florida	4414	1	2,720,744	1	177,853	1
Georgia	2406	3	1,723,909	2	109,441	2
Kentucky	1620	7	677,389	9	41,820	9
Louisiana	1426	8	711,491	8	46,4820	9
Mississippi	1074	11	492,586	10	32,292	11
North Carolina	2605	2	1,530,857	3	99,326	3
South Carolina	1256	9	745,657	7	48,151	8
Tennessee	1863	5	993,556	5	65,847	5
Virginia	2197	4	1,273,825	4	90,097	4
West Virginia	761	12	280,958	12	19,978	12

VITA

KAREN FINE

Education:
Public Schools, Peabody, Massachusetts
B.F.A. Visual Arts, University of Massachusetts,
    Amherst, Massachusetts 1982
M.A.Ed. Art Education, East Carolina University,
    Greenville, North Carolina 2013
Ed.D. Leadership, East Tennessee State
    University, Johnson City 2016

Professional Experience:
Art Teacher, Bishop Baumgartner Middle School,
    Sinajana, Guam 1989-1990
Art Teacher, Onslow County High School,
    Jacksonville, North Carolina 1992-1994
Art Teacher, Parkwood Elementary School,
    Jacksonville, North Carolina 1990-1994
Art Teacher, Western Harnett Middle School,
    Lillington, North Carolina 1994-1997
Arts Coordinator, Summit Charter School,
    Cashiers, North Carolina 1997-1999
Art Teacher, Tennessee Online Public School,
    Bristol, Tennessee 2013-Present
Art Teacher, Niswonger Foundation Online School,
    Greeneville, Tennessee 2016
Art Teacher, Tusculum View Elementary School,
    Greeneville, Tennessee 2000-Present
Artist (owner), Myart4me Arts, Telford,
    Tennessee 2000-Present

Publications/Presentations:
Presenter CANVAS training, Greenville City Schools
    2016
Presenter Mid-South Distance Learning
    Conference, New Orleans, Louisiana 2016
Presenter Tusculum View Retreat, Greeneville,
    Tennessee 2015

Honors and Awards:
Teacher of the Month, Tusculum View Elementary
    February, 2016
Teacher of the Year, Tennessee Online Public
    School 2015
Grant recipient for Summit Charter School
    expansion, North Carolina 1999
Elected Board of Directors member Summit Charter
    School 1997-1999