

International Trends and Techniques Used to Teach Studio Art Courses Through
Distance Education

by Kathryn Elizabeth Sheldon

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Director: Dr. Robert Quinn

SCHOOL OF ART AND DESIGN

Abstract

This research collected data about international trends and techniques used to teach studio art courses through distance learning. The study presents information about methods of curriculum and instruction, background information about teaching face-to-face art courses and transitioning to online instruction, the amount of time dedicated to online studio art courses by students and instructors, and details about educational resources and projects. The information provides ideas and methods to solve problems in art education through distance learning and speculates about the pedagogical effects of international classes.

This self-report survey was sent to online studio art instructors at postsecondary institutions in the international arena. The instructors responded to a series of statements and questions regarding trends and techniques used to teach studio art courses through distance learning. This resulted in standardized, quantifiable information from members of the focused population. Data collection method was e-mail.

Of the professors surveyed, the most successful part of teaching studio art online was listed as the ability to reach a broader population. The most frustrating part was listed as skepticism on the success of studio art taught online and students' lack of experience

with technology. The majority of professors considered an international population of students to be a multicultural learning opportunity despite language barriers. Eighty-eight percent of the instructors surveyed felt that online art instruction held the potential to become more prevalent in the future because of accessibility, cost effectiveness, and technological advancements. Recommendations about techniques and trends of online studio art courses have been provided based on the research data.

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International Trends and Techniques Used to Teach Studio Art Courses Through
Distance Education

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Kathryn Elizabeth Sheldon

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by

Kathryn Elizabeth Sheldon

APPROVED BY:

DIRECTOR OF THESIS: _____

Robert Quinn, PhD

COMMITTEE MEMBER: _____

Cynthia Bickley-Green, PhD

COMMITTEE MEMBER: _____

Audrey Kilgore, MFA

COMMITTEE MEMBER: _____

Borim Song, EdD

CHAIR OF THE DEPARTMENT OF ART AND DESIGN:

Michael H. Drought, MFA

DEAN OF THE GRADUATE SCHOOL:

Paul Gemperline, PhD

TABLE OF CONTENTS

LIST OF TABLES.....	iii
CHAPTER 1: INTRODUCTION.....	1
CHAPTER 2: REVIEW OF LITERATURE.....	8
CHAPTER 3: METHOD.....	49
CHAPTER 4: RESULTS.....	64
CHAPTER 5: DISCUSSION.....	86
CHAPTER 6: RECOMMENDATIONS.....	94
REFERENCES.....	99
APPENDIX A: UMCIRB 09-0321.....	104

LIST OF TABLES

1. <i>Table 1: Number of students enrolled in online studio art courses.....</i>	68
2. <i>Table 2: Virtual Resources.....</i>	70
3. <i>Table 3: Readily Available Educational Resources.....</i>	71
4. <i>Table 4: Educational Resources Created by Instructor.....</i>	72
5. <i>Table 5: Graphics Programs Used.....</i>	73
6. <i>Table 6: Devices Required or Provided.....</i>	74
7. <i>Table 7: Uses of Technology.....</i>	75
8. <i>Table 8: Materials Students Must Purchase.....</i>	76
9. <i>Table 9: Materials Provided for Students.....</i>	77
10. <i>Table 10: Effectiveness of Integrating Technology.....</i>	79

CHAPTER 1: INTRODUCTION

Prior to World War I and continuing through the Great Depression, the arts held a lively presence in American school curricula. But government support of the arts shifted to the war in decades that followed, and then after the Soviet launch of Sputnik in 1957, curricula took a dramatic turn toward more math and science content. In the late 1970s, a movement in social and multicultural content began to stimulate interest in the visual arts disciplines. In a rapidly changing world, visual arts education can teach students how to observe, envision, innovate through exploration, and reflectively self-evaluate. Research has shown no evidence that visual arts courses cause standardized test scores to rise, but mental habits taught in the visual arts are all important to successful lives and careers (Hetland & Winner, 2007).

Influences that affected the resurgence of the visual arts in the last three decades of the 20th century included national goals and standards; discipline-based art education, or DBAE; postmodernism; constructivist teaching; and new technology (Walling, 2001). Technology assisted the resurgence of the visual arts through new equipment and tools that affected both the study of art and the creation of art. Out of all advanced technology, computers are taking over everywhere, including the arts. Two themes must be addressed when the computer is involved in art education. The computer can be used to create and manipulate images, which falls under art making. Students may perform tasks such as create plans for sculptures, produce finished virtual objects, or electronically scan a sketch and manipulate the image in various computer programs. Computer-assisted methods of working have revolutionized commercial art and altered the curriculum for students who plan to enter the field. The other theme that must be discussed with

computer technology and art education is pedagogy. Students may use CD-ROMS or the Internet to research video clips, print resources, or view virtual museums. Most students find these resources motivating and engaging (Walling, 2001).

Computer Technology in Education

Computer technology is a tool that can be used simply for enrichment, but the increased availability of computers has increased the use of technology. In the second half of the twentieth century, electronic technologies began taking over our daily lives through wired and wireless networks, televisions, handhelds, phones, and a vast array of digital and analogue devices. These technologies have transformed the way people live, relax, learn, play and work (Krug, 2004). The computer has been a rapidly growing phenomenon in American education during the 1980's according to the United States Bureau of the Census (Sontag, 1987). The percentage of public schools that used computers rose from 18 percent in 1981 to 85 percent in 1984. A prediction was made at a 1983 conference about computer use in higher education that within 20 years books would be replaced as the major delivery system in education and computers would take their place. It was also predicted that the number of microcomputers would increase by 20 times on college campuses, and that during the 1985-86 academic year institutions would begin to cope with increased demands for technology by providing more computers to more faculty, students, and courses than ever before (Sontag, 1987)

Not all forecasts were as positive, however. Some feared the impact of computerization on the structure of knowledge and of society. Many critics discussed the possible adverse psychological and sociological dimensions of long term computer use from childhood to adulthood. Psychological dependence on computers, information

passing for actual knowledge or wisdom, and cognitive structures being replaced with bits and pieces of unrelated data were a few of the skeptical criticisms of excessive computer use in education. Psychological effects of computer hackers and compulsive programmers have already been noticed because these individuals are surrounded by technology and become addicted to the illusions of power and complete control. It is especially hard on young computer addicts to relate to persons rather than machines. They become conditioned to a realm of logic, order and predictability, while life does not follow a neat, preplanned program (DiBlasio, 1983).

Despite the threat of psychological dependence on computers, the rapid proliferation of computers, the Internet, and cyberspace technologies has changed students' expectations and skills as well as their lifestyles and the way they think. Cyberspace has created a generation that is eager to share stories with others—friends and strangers alike—for exciting feedback. Students would rather go online to chat with their friends than talk on the phone or go over to the same friends' houses to visit (Lai, 2002). Participation in interactive networks lacking hierarchy has prepared them for educational experiences that are “interactive, nonlinear, non-hierarchical, web-structured, and cross-cultural” (Lai, 2002, p. 34).

An increase in promotional commercials and the use of advanced technologies has caused a change in classroom students' expectations. Students have learned to value the “conversational learning style” of distance education courses (Lai, 2002, p.34). Student-initiated and student-centered classroom dialogues create new and enhanced learning environments that better facilitate open and honest discussions or disagreements.

The nature of virtual classes offers a lack of fear of being judged by one's physical appearance and attributes which can lead to a more professional relationship toward the class and classmates.

According to Lai (2002, p. 34), educational systems and teachers can not dismiss the "technosocial life" to which students have become accustomed. The burden then becomes that of the educators to understand new technologies, new learning processes, and the dynamics of virtual class interaction. The conventional class must morph from a set of buildings, room, schedules, and face-to-face interaction into an ongoing process of coordinating communication and interaction through technology (Lai, 2002). A virtual classroom is different from computer-enhanced or distance education and distributive or online learning. Definitions of distance education focus on the use of technology in making distance, not time, more flexible. Distance education classes may involve satellite, video, or teleconferencing in which students must still appear at fixed locations at the same time. Computer-enhanced and online learning focus on technological tools used in the classrooms, not the way the tools affect classrooms and schedules (Lai, 2002). The notion of "electronic learning communities" described by Krug (1997-98, p.29, as cited in Lai, 2002, p.35) explains the virtual class as a place with intercultural communication, interactive flexibility, and no sense of distance or time.

With the change in personal interaction among students and the advancement of technology, the challenge for computer use in education is to strike a balance between what is possible by technology and what is desirable in the educational situations. Learning environments would not be realistic or constructive if computers took the place

of classroom instruction. Computer-mediated instruction should present opportunity for well-designed programs that would improve the overall quality of instruction (DiBlasio, 1983). There is a general agreement among researchers that students retain twenty percent of what they hear, forty percent of what they see and hear, and seventy-five percent of what they see, hear, and do (DeVries, 1996). Successful distance education programs can provide interaction that incorporates seeing, hearing, and doing (DeVries, 1996).

Computer Technology in Art Education

Changes are being made in “fine” arts as students explore alternatives to traditional methods of art making (Walling, 2001). Can art be taught in a world without a classroom? If chemistry can be taught in virtual labs, can art be taught in virtual studios (Southside Virginia Community College, 2009)? More than 80 years ago correspondence courses began the trend of teaching without a physical classroom. More recently, online distance education has followed suit with virtual classrooms. A virtual education in art may seem unthinkable when one considers the rich sensory and cognitive experiences of making art. Has technology advanced so much that we do not need the basic tools to teach art? But then again, were paper, paint, and clay not new technologies at one point? And did Charles Csuri not use the new technology of a computer to create the first computer-generated artwork in 1963? According to Krug (2004), art educators are at a point in which positions, practices, and policies concerning the effective use of technology in learning must be critically analyzed. How can technology be effectively integrated to support and enhance pedagogical practices in art education, particularly basic courses in studio art?

Many art teachers believed that computer-assisted instruction was suited only for subjects like mathematics (DiBlasio, 1983). The use of computers by artists and art instructors for creative expression was limited by cost and availability. During the past few decades, a decrease in computer cost and the development of software for use by the average consumer has offered many artists the chance to discover computers and their potential for creating new visual images (Greh, 1986).

Some art instructors view computers to be a delivery system for instruction only, while others see it as a tool to create an art form itself. Still others view the computer only as a research tool for art education (Gregory, 1997). The key is to note the difference between computer-assisted art instruction and computer-generated artwork.

Computer-assisted art instruction involves a computer to help the instructor teach about art. Computer-generated art employs a computer as a medium for producing the actual artwork. Advantageous computer use in learning situations needs to be examined in all disciplines, including art education. Art educators and psychologists such as Arnheim, Bruner, Lowenfeld, McFee, and Piaget all agree that learning can occur efficiently and effectively through logically ordered content and sequential activities (DiBlasio, 1983). Computer technology is the very essence of logic and sequence.

Studio Art Courses through Distance Learning

Computer-assisted art instruction was the focus of this research project. Instructors that provide computer-assisted art instruction may also have their students use the computers as tools to create art, but the instruction techniques were the focal point of the study. To narrow the direction of this research even further, I focused on the distance

learning aspect of computer-assisted art instruction rather than computer-assisted art instruction in a regular face-to-face classroom. Computer-assisted art instruction can be conducted through distance learning along with many other courses. In a world where we have a social need for cross-cultural and cross-technical connections (Hicks, 1993), what better way to focus on these connections and an increase in technology than to work in a distance learning atmosphere?

Distance learning has become so popular that higher education is undergoing a change, both in the United States and internationally. As recorded in the United States at the turn of the 21st century, more than 1,600 postsecondary schools offer 54,000 Internet-based courses to approximately 1.6 million students enrolled in online courses and degree programs (Hansen, 2001). Internationally, distance education courses would benefit countries that lose prospective students and citizens to the idea of studying abroad. For example, in the 1990s China had a decline in excellence in their school system and work force because their top students studied abroad for education and then remained in that country (*The Economist*, 2009). The distance-education trend is expected to continue. According to a report by Merrill Lynch & Co., the New York-based financial management and securities firm, the global demand for U.S. higher education is forecasted to reach 160 million students by 2025.

CHAPTER 2: REVIEW OF LITERATURE

History of Distance Education

Correspondence Courses

According to Hansen (2001, p. 1002-1004), the contemporary distance learning movement actually dates back to the mid-19th century and is based on European influence. English scientist Isaac Pitman offered instruction in the use of his new “phonographic” shorthand method by utilizing Great Britain’s “Penny Post” mail system. In 1856, Charles Toussaint, a French educator, and Gustav Langenscheidt, a German writer, opened a correspondence school in Berlin, Germany. William Sewell, senior tutor at England’s Exeter College stated that “though it may be impossible to bring the masses requiring education to the university, may it not be possible to carry the university to them?”

When the United States began correspondence programs, they mainly targeted women. In 1873, the Boston-based Society to Encourage Studies at Home offered two-dozen correspondence courses in history, science, art, literature, French, and German. By 1882 the society had more than 200 faculty members, 1,000 students, and tuition only cost \$3 a year. Before the innovative thinking of one woman, lessons were mailed to students, completed work was not returned for comments, and there was no practice of exchanging letters for communication between students and teachers. Anna Eliot Ticknor, daughter of Harvard University Professor George Ticknor, was credited with the idea of mailing lesson plans, books, engravings, photographs and maps once a month to students throughout the country. The students were then required to take notes on their readings

and mail them back for evaluation. The same year that Ticknor launched her operation, the Illinois Wesleyan University in Bloomington became the first established university in the United States to offer correspondence education that could lead to both undergraduate and graduate degrees (Hansen, 2001).

Just as the debate over electronic distance learning continues today, critiques then labeled correspondence courses inferior to the traditional classroom setting. Several universities refused to recognize Wesleyan degrees that were obtained solely via correspondence study which led to the phasing out of the program. Despite the questions raised about the academic integrity of correspondence courses, public demand increased during the 1880s and 1890s. It became a widely held notion that geography, age or occupational factors should not prevent an adult from obtaining a college degree (Hansen, 2001).

In 1881, mail-order Hebrew courses began being offered to prospective clergymen by William Rainey Harper, a young teacher at Baptist Theological Seminary in Morgan Park, Illinois. Harper was soon recruited to teach correspondence courses at other institutions because of the popularity of his program. He began a program in 1885 at the Chautauqua College of Liberal Arts in upstate New York, and in 1886 he started another program at Yale University. America had a growing appetite for educational enrichment (Hansen, 2001).

Thirty-two professors from several universities, including Harvard, launched The Correspondence University in 1883. It was based at Cornell University and offered home study in many academic disciplines. The operation unfortunately had neither a state

charter nor the authority to grant degrees and was shut down after a few years when it was not granted the approval of its founders' home universities (Hansen, 2001).

In 1892, William Harper had another major breakthrough for correspondence education. He became the first president of the University of Chicago and established a "home study" department that advanced the legitimacy of distance education (Hansen, 2001, p. 1004). In 1886, he had published a book that discussed the advantages and disadvantages of correspondence study. As president of the University of Chicago and founder of the correspondence program, he continued to refute every disadvantage, including the lack of face-to-face interaction (Hansen, 2001).

The personal magnetism of an instructor is often felt by pupils for years after they have ceased to come in contact with him. Some teachers... exert upon the students an influence for good which cannot be estimated. Such influence the correspondence student does not feel; such stimulus he does not receive... If the personal stimulus furnished by the teacher is absolutely necessary to [obtain] good results on the part of the student, then two-thirds of the oral instruction given is valueless; for it is safe to assert that two out of three teachers exert no such influence on their pupils, their work being purely mechanical. (Hansen, 2001, p. 1004)

According to Hansen (2001), not only did Chicago's correspondence program survive criticism, it sparked other initiatives. By 1914, more than a dozen colleges were offering correspondence instruction in the United States. For example, Pennsylvania State College (now University) focused on farmers that were seeking better ways to grow crops

and raise livestock, while the University of Wisconsin created a vocational correspondence program that partnered with the Milwaukee Merchant Manufacturers Association to provide job-training for factory workers like blueprint reading and mechanical drawing. There were also schools that awarded degrees without requiring students to meet traditional academic standards; these correspondence programs that falsely guaranteed high-paying jobs to graduates were awarded the title of “diploma mills” (Hansen, 2001, p. 1005). Suspicion was cast on all correspondence courses thanks to the increase of diploma mills in the 20th century. The United States Office of Education issued a report in 1961 that declared diploma mills were confusing the public and damaging legitimate and reputable correspondence schools.

Distance Learning through Radio and Television

Thomas Edison had an enthusiastic forecast of education. In 1919, he likened the future of teaching to movie shows in every classroom. He envisioned students scrambling for good seats to watch the videos, the only textbook needed was for teacher’s use, the films and moving objects would do the teaching, and all youths would be educated (DiBlasio, 1983).

Film teaching will be done without any books whatsoever. The only textbook needed will be for the teacher’s use. The films will serve as guideposts to those teachers’ instructional books, not the books as guides to the films. The pupils will learn everything there is to learn, in every grade from the lowest to the highest. The long years now spent cramming indigestible knowledge down unwilling young throats and in examining young minds on subjects that they can never learn

under the present system will be cut down marvelously, will be eliminated, and the youth of every land will at last become actually educated...

The moving object on the screen, the closest possible approximation to reality, is almost the same as bringing the subject itself before the child, or taking the child to the object...

By making every classroom and every assembly hall a movie show, one hundred percent attendance (will be assured). Why you won't be able to keep boys and girls away from school then. They'll get there ahead of time and scramble for good seats, and they'll stay late, begging to see some of the films over again. I'd like to be a boy again when film teaching becomes universal. (DiBlasio, 1983, p. 39)

With the development of long-range radio in the early 1920s, the federal government granted broadcasting licenses to more than 200 colleges and school boards. More than 10 percent of all U.S. radio stations were delivering instructional programming through educational institutions by 1923. However, only one college-level credit course could be obtained over the radio by 1940 (Hansen, 2001). The invention of television was another boost for distance learning. The University of Iowa was the first educational institution to broadcast instructional programming via television in 1933. New York University also used distance-learning through the television in the late 1950s. With a single camera in the classroom and a teacher standing before a class, the "Sunrise Semester" series was aired on national television (Hansen, 2001, p. 1005).

A well-established instructional television system of distance education began in China in the 1960s. The Dianda system became one of the largest education systems with the capability to enroll upwards of 100,000 learners (Zhang, 2005). India introduced distance education in the 1960s as well with correspondence courses offered to rural and underserved communities (Sharma, 2005). Multiple technologies to teach distance education courses began to emerge in the 1960s. The University of Wisconsin launched a program in 1963 that combined TV and radio broadcasts, audiotapes, and teleconferencing. The project was rudimentary but it proved that distance-learning students could benefit greatly from multiple presentation modes of educational content (Hansen, 2001).

Great Britain's Open University followed the success of the Wisconsin project by offering distance learning via television, radio and other media in 1969. In Europe, the United Kingdom's Open University was followed by UNED in Spain in 1972, FernUniversitat in Germany in 1975, the Open Universiteit in the Netherlands in 1982, and Universidade Aberta in Portugal in 1988 (Conway & FitzPatrick, 2005). The "open university model" was primarily offered as a second chance to people that didn't have the opportunity to achieve a university degree in their youth (Conway & FitzPatrick, 2005, p.78).

In 1970, Bernard Luskin, vice chancellor of Coast Community College in Costa Mesa, California, designed a television correspondence course. His model involved a teacher delivering a lesson via multiple televisions to a classroom filled with students. The students could call in and leave questions for their professors on telephone answering

machines. Coastline Community College in Fountain Valley, California, followed the Luskin model and began broadcasting courses via public television to other institutions in Orange County; they were serving 18,500 students in Southern California by 1976. During the 1980s, this distance learning model spread throughout the country (Hansen, 2001). Internationally, India established the first open and distance education university in 1982. As early as 1986, India's National Policy on Education stated that in order to address learning for all, the future thrust must be in the direction of open and distance learning. The government of India established the National Open School in 1989 to provide primary, secondary, higher secondary, vocational, and life-enrichment programs to students from ages 14-76 (Sharma, 2005).

Distance Learning through Computer Technology and the Internet

There have been many predictions about educational applications of computers. Though it can be appreciated that traditional methods are superior in some instructional circumstances, many predicted in 1982 that children would one day be receiving academic education from home computers and attending school only to learn social graces. It was forecasted as early as the 1960s that computers would yield results equal or superior to traditional classroom instruction on all tests (DiBlasio, 1983). With the development of the Internet in the mid-1980s, the landscape of distance learning changed again. The New Jersey Institute of Technology was the first U.S. educational institution to deliver online undergraduate courses, and the University of Phoenix followed suit with the first completely online degree programs in 1989 (Hansen, 2001).

Distance learning through the internet and, in particular, online degree programs have begun to democratize education (Carr-Chelman, 2005). The Internet has been described by various writers as “a tool for research, a method for community building, and a forum for interaction” (Sweeny, 2004, p. 76). Populations that have not had access to education because of geographical location, job status, or physical handicap can now have access to higher education. Online education can not only shorten the distance between an elitist education and the rest of society, but it can also increase anonymity among participants in order to create strong bonds among socially diverse groups (Carr-Chellman, 2005). “The lack of traditional spatial and group constraints means that virtual communities are often heterogeneous in social characteristics, such as lifecycle, gender, ethnicity, and socioeconomic status” (Carr-Chellman, 2005, p. 3).

The Internet has opened up very important space for progressive and democratic communication, especially for activists hamstrung by traditional commercial media. This alone has made the Internet an extremely positive development. Some have argued that the Internet will eventually break up the vise-like grip of the global media monopoly and provide the basis for a golden age of free, uncensored, democratic communication. (Carr-Chellman, 2005, p. 4)

When the term distance learning is used, it is implied that learners are physically separated from the main source of instruction as with correspondence courses. The delivery of instruction to geographically dispersed individuals or groups through various technological means is the basic description of distance learning. Connection and

interaction between and among teachers and students is very important to distance learning and essential to the advancement of the educational process (Gregory, 1997).

Computer Technologies Used With Distance Learning

Technology is key to distance learning because arrangements are predominantly media-based. Various technologies used for distance learning include satellite broadcasting, cable programming, videodiscs, and computer networking (Gregory, 1997). Some of the resources used in technology-mediated activities between teachers, students, and educational resources include cultural institutions, professional experts, on-line databases, printed information, visual materials, or instructional programming (Gregory, 1997).

Computer networking.

Computer networking is one of the most effective ways to communicate with one another and to access information resources over long distances. Basically a computer network is formed when local area networks (LANs) are set up in classrooms, offices, and buildings. The file server is connected to all of the computers so different computers can use the same application software. There are thousands of city, state, regional, national, and international networks that link to the LANs, which are in turn linked to the internet – a vast global system of interconnected computer networks (Gregory, 1997). The only things required to connect to this worldwide network is a modem or other form of internet access and communications software such as Internet Explorer, Netscape Navigator, or Mozilla Firefox.

According to Gregory (2007), there are various ways that teachers and students can use computer networking in distance learning. Electronic mail (e-mail) is probably the most common application used to provide interpersonal communication between students and teachers. A network user can send a message to a person on the same network or persons on other networks through the Internet. The message could be sent to a single person or to a group of people to create group interaction. Another important tool for distance learning is the electronic bulletin board system. Bulletin board systems allow users to discuss topics of special interest and interact with others through the Internet in various cities around the world. The electronic forums give students the opportunity to interact with local experts and conduct remote research from home.

Integrated services digital network.

An advancement in technology called the Integrated Services Digital Network (ISDN) made it possible to have access to video-conferencing, interactive television, and various other learn-at-home services. Because of the multimedia and interactive aspects of ISDN, it offers interesting possibilities for improving art instruction and the public's access to art resources. ISDN is a highly flexible communications system in which data is compressed so as to be transmitted over copper telephone lines or optical fibers. It offers ways to transmit information as never before because it is completely digital in format. The largest advantage ISDN has offered distance education is the ability to converge image, voice, text, and video into one signal which allows for multisensory interaction between persons and resources (Gregory, 1997).

Interactive strategies.

Current technologies that can promote interaction include low- and high-end interactive strategies. Low-end interactive strategies that are relatively inexpensive, effective, and easy to organize may incorporate formal and informal student study groups, peer reviews, group viewing sessions of video material, and correspondence activities. Computer enhanced interactive strategies are considered high-end. These include e-mail, computer conferencing, and utilization of electronic bulletin boards to post notices, assignments, and comments. These high-end strategies can provide exciting, memorable, and rewarding experiences despite being more expensive and requiring certain technologies (DeVries, 1996). In one research study, it was concluded that the most important tools used by students for online courses included grades, assignment instructions, feedback about completing assignments, e-mail, and lecture notes (Harris & Parrish, 2006).

Current International Trends of Distance Learning

The open access of information and learning opportunities does hold the possibility of democracy in education. As information is moved to the many populations from different economic and social classes, some fear online education may also widen the gap between haves and have-nots. For example, a South American farmer in a poor, rural town would not have access to new streams of revenue through Web design skills or e-commerce. He or she may not even have access to electricity or telephones, much less high-speed internet that could also provide a connection to institutes of higher education (Carr-Chellman, 2005).

In the coming decade, higher education seems likely to split into two distinctly different sectors: (1) two hundred or so institutions that deliver high quality, face-to-face teaching for those slated to become social elites; and (2) several thousand semi-campus, semi-cyberspace, hybrid organizations – colleges, universities and business firms – ready to pump instruction and credentials to a flexible global workforce. (Carr-Chellman, 2005, p. 6)

In the following sections, I will illustrate the current trends in a selection of international regions.

China.

An important motive for distance education can be observed in China. “In a country like China, which has 1.2 billion people, the demand for education is so great that traditional education cannot be expected to meet the needs” (Zhang, 2005, p. 27). The ability to meet the needs of large masses of people is another strong benefit of online education. The Chinese government has assured students in distance education that their degrees will be of equal value to conventional college degrees. However, many Chinese are skeptical about the quality and credibility of online education offerings from foreign countries. Not only are there language and culture barriers, but Chinese universities maintain strict test administration through the use of photo IDs at assigned locations. This ensures high credibility and prevention of cheating (Zhang, 2005).

Taiwan.

Just as in many other places around the world, the Taiwan government has assigned the Internet and online distance learning the responsibility to bridge gaps between lower-income and rich households, rural and urban areas, elder and younger generations, females and males, low and high educational levels, and geographical and spatial constraints. Unfortunately, the digital divide in Taiwan is no less apparent. Access to the internet is limited in rural areas, and those that have access do not always have the Information Technology (IT) skills to effectively and efficiently apply technology (Qi, 2005).

Africa.

Immense and complex challenges affect countries of Africa when moving into technologically-advanced learning. The potential of digital information and communication technologies to offer opportunities like never before are confronted with challenges of access, costs, and quality. Government officials and educators throughout Africa are searching for ways to make more universities faster than ever before in the history of higher. Yet, democracy in Africa is not about open access to e-learning; it is about freedom of expression, peace and equality. There is a question of cost, and also the disappearance of societies and cultures with the change of information and learning. With the implementation of e-learning in Africa, there is a very real risk of widening the gap between the haves and have nots (Carr-Chellman, 2005).

Europe.

Several issues are at play in Europe with regards to online learning. The issues revolve less around innovation and more around how to make online learning work in the long run. There is not much discussion about social inequities and injustice with online services, but “the danger that computers create new elites is real” (Carr-Chellman, 2005, p. 68). Language is an issue in that there are so many different languages spoken in Europe, along with honor regarding culture. These agendas affect the idea of recognition of qualifications across borders and credit accumulation through online coursework.

Ireland.

A case study was conducted on Ireland’s framework for online education. Ireland was relatively late providing an open university model at the higher education level in the European context. One of the largest debates has been over the usual lecture and seminar format of traditional universities in Ireland.

...The advent of virtual learning environments (VLEs) has turned the Web into a potentially highly efficient educational tool offering both the possibility of developing and disseminating a wide range of interactive multimedia-based learning materials and discussion tools for exchange of ideas between learners and teachers and among learners themselves. (Conway & FitzPatrick, 2005, p. 78)

Turkey.

According to Gursoy (2005), Turkey is a country with limited resources and a high demand for extending educational opportunities. There is a large gap between

rhetoric and reality in distance education. Educators and government officials in Turkey took the initiative to create an educational system with the support of their government and the Turkish Council of Higher Education (TCHE). Large investments helped to bring advanced technologies to the existing distance education program. Distance education was developed in Turkey in the 1980s at Anadolu University, and is still the only institution to offer distance learning in the country. Several universities offer online certificate and degree programs including Middle East Technical, Istanbul Bilgi, and Bilkent, while Sakarya, Karadeniz Teknik and Firat Universities offer online courses. A report by the TCHE provides information that the development of new distance education programs is encouraged, but the cultural, social, and economic realities of the country make a negative impact on distance education.

United Kingdom.

The United Kingdom's interest in e-learning is similar to the United States. There is a high level of Web access in both countries – 55% of those living in the United Kingdom and 57% of those living in the United States have Internet access. The expectation that e-learning would increase efficiency by bringing down costs while enhancing students' learning experiences is of great interest to the United Kingdom. The interest is also driven by the U.K. government's objectives to increase participation in U.K. higher education closer to the United States' level. The target is that 50% of the U.K. population should have higher education experience by 2010. The United States currently has 60% of Americans with a higher education experience (Simpson, 2005).

United States.

According to Carr-Chellman (2005), web-based education in the United States has become one of the hottest new training modalities. More than one-third of all four-year colleges and universities offered some form of distance education in 1997, and by the year 2000, more than 56% of those institutions were offering distance education programs with more than 3 million learners involved in distance education opportunities. Recent advances in Web-based design tools and the fear of open-market competition has fueled the fire for a variety of organizations that have become attracted to distance education. America is the fastest growing of all international markets with regard to Web-based degree and certificate programs. The reasons for this growth include an open, permeable higher education system, the efficiency value of Web-based degree programs, the independent nature of online learning and America's love of independence, the history of vocations in higher education in America, and the myth of the meritocracy.

In the United States, Jones University was the first all online university to gain regional accreditation (Carr-Chellman, 2005). Offering a wide variety of primarily master's and bachelor's degrees in business, education and communications, the accreditation caused a stir by the American Association of University Professors that pointed out Jones University did not have many of the specific requirements enforced by traditional universities. The issues are raised due to loose quality control mechanisms and unscrupulous entrepreneurs such as those that create diploma mills. Despite criticism, the Web-based education system promised efficiency because there is no need for travel. Time and money are saved while educational goals are met. Americans as a whole are

quite interested in not only saving time and money, but also attaining success completely independently. There is also a myth of meritocracy in America that is a powerful shared belief. Basically, anyone can become anything in America; social rewards are given to those that demonstrate talent and ability or merit, rather than wealthy, family connections, or popularity. The idea of this system is considered a myth because our society is constantly made aware of IQ and SAT scores, college admissions, and income levels that are strongly linked to family wealth and parental education (Carr-Chellman, 2005).

American higher education has evolved away from liberal education and toward vocational goals. As early as 1930, Abraham Flexner, American educator and graduate of Johns Hopkins and Harvard University, conducted a study and review of universities in England, America, and Germany.

It is strange that the general American public is utterly at sea as to what education is, as to what purpose the college serves, as to where the line should be drawn between mere tricks, vocational training, practical experience, and intellectual development...Some of the reasons for the low quality of college education I have already given, but there is one more, reflective tone and spirit of American life that is especially important. The American wants to get ahead...It is no exaggeration to say that most college students look upon college as a means of getting ahead in life, for them the college is largely a social and athletic affair...Almost no one at the top has been deliberately trained for his post; anybody may, if really able, become anything – banker, executive, general, diplomat, scientist, editor – whatnot. (Carr-Chellman, 2005, p. 151)

The increase of vocational degree programs and the decline of undergraduates majoring in philosophy, literature, and sociology is a sign of Americans wanting to get ahead. One of the main justifications for open access to higher education is to allow those that want to advance their careers to have access to traditional colleges. The theme of vocational courses in online education is very strong. Most cybercourses are geared towards vocational advantages such as business administration, webmastery, educational leadership, information technology, and computer literacy. The courses about Shakespeare or Impressionist painters are rarely offered online (Carr-Chellman, 2005).

Removing Cultural Contexts in International Distance Learning

Distance education is by definition borderless. Enrollments in distance education programs have progressed from local to national to regional to international according to Blight, Davis and Olson (1999, as cited in Latchem, 2005). This means that distance education can possibly forge international networks and partnerships, internationalize the curriculum, promote virtual staff and student mobility, and encourage higher education to have a more international outlook. Several universities are excelling at this. The University of Southern Queensland, Australia, provides award-winning undergraduate and postgraduate programs for 6,400 international students from over 100 countries. The United Kingdom Open University not only laid the foundation for open learning across the world, but today provides distance education courses that are considered among the world's best to 130,000 students online and 30,000 students a year that are located outside the United Kingdom (Latchem, 2005).

According to the British Columbia Task Force on Internationalization (1993, as cited in Latchem, 2005) students must be prepared by universities to live and work in a diverse and independent world. It was suggested by the Australian National Board of Employment, Education, and Training (1992, as cited in Latchem, 2005) that graduates need to be capable of contributing to intellectual, cultural, economic, and social development at the international level, and must be able to be employed anywhere in the world with a level of internationally practiced professionalism. In a study that compared Australian, Canadian, European, and American educational systems, de Wit (1995, as cited in Latchem, 2005) listed several items that the universities needed to achieve that could all be accomplished through distance or virtual learning. These needs included a curriculum infused with international, intercultural, and international development studies, cross-border teaching and staff-student exchange, and international collaboration in credit transfer and credentialing.

A few educational researchers have claimed that distance education has enhanced cultural awareness (Lai & Ball, 2004). Multicultural approaches to education help students and teachers to share, explore, and critique their own cultural experiences, identities, assumptions, and interpretations. With face-to-face interaction, students can interpret each other's cultural backgrounds through sensory cues. But with online learning, some believe that culture is removed when the students appear to each other as names on a screen (Lai & Ball, 2004). When this article was written, the authors discussed a removal of culture because the students could not see body types, hairstyles, clothing, skin colors, gestures, or mannerisms, and they could not hear each other's accents. In the current era, the only part of culture that is lost in cyberspace is the smell of

a student's cologne or body odor because the technology exists at all universities to hear students, and for the most part, to see students as well. Online education is not merely a computerized version of face-to-face education. It is a learning environment with its own communicative logic and dynamic (Lai & Ball, 2004).

Virtualization of courses addresses questions such as how can cultural mechanisms be recognized online and how do increased time-space flexibility and text-based communication result in communicative dynamics. Online communication is one way that culture comes into play with online learning because the written responses often read like they were being spoken (Lai & Ball, 2004). It is "written language which has been pulled some way in the direction of speech" (Lai & Ball, 2004, p. 24). "Netspeak" is so interesting as a form of communication because of the way it relies on characteristics belonging to both sides of the "speech/ writing divide" (Lai & Ball, 2004, p. 24). When students participate in discussion boards, they often use their regional dialects and slang (Lai & Ball, 2004).

Spain's Instituto de Empresa (IE) business school ranks as one of the world's top ten campuses. It has plans to go global with undergraduate education. The new rector, Santiago Iniguez, has said that the courses will have close ties with real-life; psychology students will see how organizations work, art students will learn to run auctions, and architects will learn to deliver projects on time and on budget (The Economist, 2009). This global ethos is both positive and possible, but what of the cultural roadblocks between nations? Can enough cultural contexts be removed through online learning that

international courses are effective? Studies are still being conducted on this topic because international distance learning is such a recent endeavor.

Technology and Art Education

Art and art education have been directly involved with technology throughout history. In 1986, a strong case was made for the inevitability of combining new technologies with traditional forms of art.

The issue of the impact of technology on the arts is more than a question for cultural historians and aestheticians... It poses a central problem for the development of arts policy because technological applications constantly strike at the fundamental idea of artistic creation... There are two views that one can take of technological progress in our contemporary culture. One can assume that technology... is a catastrophe; or one can believe that it is an ever-growing pile of discrete and wonderful events moving society toward some sort of utopia... We should not think in terms of art versus technology. Art has always interfaced with technology, whether in the ancient techniques of casting bronze, still with us, or in lithography, now in its third century, or in photography. Wonderful cross-fertilizations are possible when new technologies interact with the old. Some scholars argue that Monet's *Boulevard des Capucines* is an image that would not have been painted before the advent of photography. Photography rendered a similar blurring of images, especially in the early decades when shutters and film stocks were slow... Art and technology are twins. (Winston, 1986, p. 198)

Examples of art and technology interacting can be viewed throughout history. For example, Brunelleschi created the first modern perspective painting with a single vanishing point. One peered through a hole drilled in a wooden board; the painting was actually on the board facing away from the viewer, but the viewer looked through the hole at a reflection of the image in the mirror. “Contemplation of the relationship between art and technology leads to the realization that as a society, we must be prepared to provide mirrors for our Brunelleschis” (Winston, 1986, p. 200).

Despite the evidence of art and technology being intertwined, there are instructors in the field of art who reject technological changes based on the perception that humans make art and machines do not. They believe that skill in watercolor technique is good while skill in developing imagery on a computer is not good. Though watercolor brushes and computer programs are tools that can be used to create surfaces of color, one is traditional and the other is often deemed not acceptable (Hicks, 1993). It is interesting that this negative attitude would persist during the “Age of Aesthetics” – in which increasing technological changes are paralleled by an expanding world of art (Hicks, 1993, p.42).

Support for New Technologies in Art Education

“Media arts” is a term that relates to new electronic technologies rather than traditional materials such as paint and clay (Hicks, 1993, p. 42). This includes computer-generated images, animation, multi-media involvements connecting sound, photography, television, or video tapes and a computer. Components of the media arts include laserdisc and CD-ROM players, interactive television, fax and copy machines,

laser color printers, and pen-held devices for computers. Artistic activities that can be completed with media arts may include robotics, telecommunication, fiber optic systems, and the combining of traditional imaging processes with those of machines (Hicks, 1993). These technologies and components are important because they can be used in connection with art courses through distance learning.

There are three important reasons why art programs need to include technology and the media arts as well as the traditional arts. As a language, art dates back to cave dwellers, but the current age of information and communication brings with it a need for a renewed awareness about the communicative role of visual imagery (Hicks, 1993). There is a growing importance of visual symbols, iconography, and complex communication systems throughout the world. Communication has become defined as a system which incorporates more than two languages and more than one mode of delivery simultaneously (Hicks, 1993). This multidimensional form of communication is directly related and complementary to distance learning.

A second reason for the inclusion of technology into the art classroom is the growing importance of technology-related aesthetic decisions on individual and cultural levels. Aesthetics is the sensitivity, appreciation, concern, and study of beauty. The parameters of aesthetics have had to be redefined for the information age to allow for diversity, increased connections with technology, and to provide greater personal and social relevance. The new definition of aesthetics includes an extended vocabulary, a greater focus on process, openness to collaboration and cooperation, a revised definition of originality, greater focus on spontaneity and the unexpected, an expectation for greater

diversity of imagery, greater focus on cross-cultural and cross-technical connections, and a look for closer relationships between art and science, mathematics, engineering, and even manufacturing (Hicks, 1993). Today aesthetics and ergonomics are identical. Customers that want to purchase goods are interested in choices, performance, convenience, and personal identity; choice and identity are directly related to aesthetics. The old Bauhaus motto “Form follows function” has been reversed. In the information age, “Function follows Form” (Hicks, 1993, p. 45).

The third factor for including technology in art education is a growing social need for “connectionism.” Connectionism, or a web of connections, is also an important part of distance learning. Interactivity or inter-connectedness through cellular phones, satellites, and fiber optic systems has become a phenomenon of survival for the majority. Even in the art classroom, there is a need for meaning, holistic thinking, and a synthesis of information. Instructors need to integrate traditional tools, processes, and ways of thinking about art with new tools, new processes, and the thinking skills needed to synthesize diverse concepts and complex information (Hicks, 1993).

Support for including the media arts in existing art programs comes from the world of art and from major arts advocacy groups. The National Art Education Association and the National Endowment for the Arts vocally support the media arts and advocate the initiation of professional meetings, conferences and institutes to help upgrade art teacher skills in the use and teaching of the media arts (Hicks, 1993). As technology expands, the world of art expands, and this leads to the creation of more art related career opportunities tied to new technologies. With the future of economy,

innovation and bringing new products on line are necessary for survival. In order to be innovative, ideas must be free-flowing and workers must be creative and well-educated. If a person has the ability to demonstrate art knowledge and art proficiency, he or she will have a better chance of getting a job in the workplace of the future. Though industry is more focused on technical training, skills like perceptual development, creativity, and problem-solving skills are becoming increasingly desirable by workers in a global economy (Hicks, 1993).

How Computers Assist in Art Instruction

Whether for political, economic, or personal reasons, computers are not in most art rooms (Greh, 1986). Art educators are sometimes skeptical of introducing computer-assisted instruction into the art classroom because of the assumption that computers are only suited for subjects like mathematics (DiBlasio, 1983). In actuality, computer use can be included with art instruction in both content categories and cognitive stages of art learning.

The content categories of facts, skills, established and frontier art concepts, and aesthetic values can all be addressed through computer use in art education. Also, the four cognitive stages of learning can be taught through computer use. Students can acquire information through lecture, reading, demonstration, and direct art experience; reinforce their new knowledge by practicing skills through repetition and reflection; integrate the new understanding and skills with existing concepts and generalizations; and be tested on their new understanding in the real world of art through art criticism.

Computer-aided instructional strategies can be used in presentation and enrichment. Two modes of presentation are tutorial strategy and drill and practice. Four strategies for enrichment include problem-solving, simulation, games, and inquiry. Also, the presence of computers in art education can help create an attraction for students who may find little interest or value in the realm of art. Art discovery, problem-solving and art production can now be as much fun as any other computer diversion (DiBlasio, 1983).

Art instructors need to embrace technology rather than be passive recipients. However, in doing so, they must teach their students that technology can have political, social, and environmental consequences. Students must recognize – through the help of their instructors – that technology is about us, we are responsible for it, and we must respond and interact with responsibility. Finally, what the realm of art has strived so hard to maintain must be embraced along with technology; namely, students and teachers alike must sometimes do without television, calculators, headphones and computers to achieve a healthy balance (Gregory, 1997).

Improved format of art courses.

Technology has the potential to improve not only the status of art programs, but it can also improve the format and success of art courses. The use of interactive multimedia (IM) in the learning environment provides a level of visualization not possible with traditional media (Cason, 1998). Interactive multimedia is being explored in colleges and universities because of its effectiveness in terms of “learning outcomes and student satisfaction” (Cason, 1998, p. 338). Though IM is not always conducted via computer instruction through distance learning, many of the principles are still the same.

Research has proven that IM can contribute to the attainment of higher-order understandings and choice of appropriate search strategies in thinking and writing about art (Cason, 1998). For example, the traditional format for the art history survey is the instructor-moderated slide lecture – or the “art in the dark” method – in which students view a vast number of unfamiliar images and are expected to absorb the information (Cason, 1998, p. 337). Cognitive psychologists and educators have confirmed that learning is a process of knowledge construction, not knowledge absorption (Cason, 1998). Resnick (Reeves, 1993, as cited in Cason, 1998) has identified three principles of contemporary cognitive theory that support IM.

The first is that IM programs can be designed to present problem situations in which students must retrieve and construct knowledge (Cason, 1998). Using IM, students can study artworks in interdisciplinary contexts enhanced by audio, text, animation, color, video, and graphics. The linear or hierarchical sequence of traditional text can be eliminated so students can access and associate information in any order desired. Research skills and problem-solving skills can be honed through a linkage of topics as the learner builds a comprehensive knowledge about art.

This ability to retrieve and construct knowledge relates to Resnick’s second principle that the ability to acquire new knowledge depends upon existing knowledge and the effectiveness of a student’s knowledge-seeking strategies. A well-designed IM program can lead to the construction of knowledge and the development of thinking skills (Cason, 1998).

The third cognitive principle recognizes that learning is context-dependent; the meaning assigned to a concept depends on the situation or context in which the concept was first introduced. Unlike knowledge that can be compartmentalized, art is a body of knowledge in which the meanings of concepts vary from one case to another. Another benefit of IM programs is that a “situated learning” environment is created in which students make connections between multiple contexts (Cason, 1998).

Computer use in art production.

Computer use in art production has expanded with the help of interactive graphic systems such as paint software. Unfortunately, recent research has shown that teachers use software in ways similar to how they taught before they had a computer in the classroom (Freedman, 1991). This lack of change does not draw on the strengths of computer hardware and software. Often students enjoy the production process on computers because of a variety of reasons. Making changes or correcting mistakes with computers is much easier than working with other media. Computer graphics production also makes it possible to keep an image while at the same time change it, also known as “seriation” (Freedman, 1991, p. 41). This allows students to take more chances when working at the computer. Another interesting aspect is that students seem to use production accidents in different ways. Students sometimes believe that things that happen unexpectedly on the screen produce a more interesting image than what the student had in mind, and the accidental works of art are often kept instead of the original idea (Freedman, 1991).

Computer Use in Art Departments in Higher Education

Even though microcomputers had only been commercially available in America for 11 years, the fourth basic revolution in the history of communications had begun as the United States was being transformed into an information society in the mid-1980s. Several factors contributed to the assumption that computer technology was an increasingly important influence on higher education including the growing dependence of society upon the technology, more computer literate college-bound high school graduates, expanding educational computer applications, and lowering costs of hardware and software. Though computer technology was being used to perform administrative, research, and instructional functions in higher education, art study had the image of being indifferent to computer applications. Though the art discipline was not as dependent on computers as other areas such as science and engineering, professors in the art field could not afford to ignore the growing educational role of technology (Sontag, 1987).

According to Sontag (1987), a study was conducted as recently as 1985 regarding the use of computer technology by art departments in higher education. A questionnaire survey of two sample groups was conducted during the 1984-85 year to gain overview of art department involvement with computer applications in higher education. The six questions included on the survey were information on program size and degrees; three questions on the extent of computer applications in the areas of administration, research, and instruction; a question about the potential future role of computer technology in art programs; and a question to identify the most significant factors limiting current and future department computer applications. If respondents did have computer involvement

in their program, they were asked to complete an additional 12 questions about computer use within department administrative, research, and instructional areas. Survey A was a random sample of 309 art departments while Survey B was comprised of 161 departments having either terminal graduate degree programs or an enrollment of at least 200 majors.

The computer role in instructional program is of most interest to this research. In Survey A, only 5 % had a significant computer role in instructional program and only 9% had a significant role in Survey B. Sixty-six percent of those surveyed in the A group listed no computer role in instructional programming, and 39% in the B group described no use of computers. Despite the lack of computer involvement by art departments, there was as strong interest expressed by art chairpersons in expanding computer involvement. Several factors affect the low computer involvement including a lack of faculty expertise, the high cost of computer technology, limited department budgets, competition of administrative computer needs with academic computer needs, inadequate educational software, limited understanding of the potential of computer technology, and a lack of planning (Sontag, 1987).

Current Trends of Distance Learning in Art Education

According to Gregory (1997), satellite instruction to art students began in the 1960s with a teacher being broadcast live from his or her studio into receiving classrooms at various locations. According to Quality Education Data in 1994, satellite instruction accounted for approximately 15% of distance education in the United States (Gregory, 1997). According to the research performed in the mid-1990s, most curricular offerings

available through satellite broadcasting included science, math, and foreign language. A few providers offered art instruction via satellite though. Distance Learning Associates of New York and the Massachusetts Corporation for Educational Telecommunications offered live telecourses on the following art topics: watercolor painting, drawing, commercial illustration, political satire, commercial cartooning, and art history. Professional development courses in art education were also broadcast via satellite at various sites across the United States.

New technologies hold incredible potential for the art education community. The Internet can provide not only a new form of communication, but new forms of “visuality” (Sweeny, 2004, p. 80). Sweeny (2004) defines visuality as the complex sociological and biological relationships between what we see and how we see. The Web provides a space to construct art, share art images, and hold discussions using both words and pictures. Museum collections are just a click away. Images that have never appeared in print, slide, or poster format can be available on the Web instantaneously with the help of a digital camera or a scanner, and a computer. For example, the photos of prehistoric caves at Vallon-Pon-d’Arc were discovered in 1995 and posted on the web before they appeared in any journals, books, or newspaper articles. Artists like Christo and Jeanne-Claude posted images of their photography project, *The Gates*, on the web so the entire progress of the installation was recorded (Gregory, 1997).

The exploration into distance learning with art education is in the initial stage. Online learning has already carved its place in education, and art educators are becoming “cyberfaculty” (Lai & Ball, 2004, p. 20). The web is being used to create art, post images,

and exchange conversations in words and pictures (Lai & Ball, 2004). Technology has become a delivery system for art instruction, a creative learning medium for exploring cultural diversity and global connectivity, and a professional development resource for art instructors (Gregory, 1997). Instructors believe that interaction is a key issue for any distance education program. For some faculty and administrators, the absence of three hours of lecture per week in the same classroom at appointed times makes distance education unacceptable. Others consider the traditional model of learning from teacher to student destitute (DeVries, 1996).

A Report from The Ohio State University

A teaching associate in the Department of Art Education at The Ohio State University taught a web-based distance education course entitled “Ethnic Arts: A Means of Intercultural Communication—Online” (Lai, 2002, p. 34). Some of the technologies employed include chatrooms, discussion forums and e-mail. The professor used visual, audio, and video learning resources, along with syllabus, assignments, and course readings that had been digitized to be provided via the Web. Information was organized so students could conduct investigations of course ideas and issues through inquiry, reflection, questioning, analysis, interpretation, and writing. Online materials could be browsed, read, or printed out from student computers so the students could study when and where they wanted. WebCT was the program used to manage and secure the course website (Lai, 2002).

Students are required to communicate with each other and with the instructor by writing messages that are exchanged over the Internet through e-mail, a listserv,

discussion forums, and chatrooms. Online participants use these tools to contact each other to express their ideas, to solve problems, to complete and post assignments, and to receive feedback from their peers and the instructor. (Lai, 2002, p. 35)

In virtual classrooms, textual messages are exchanged asynchronously. This means that the communication is transmitted intermittently rather than in a steady stream. As one student noted, this could be a positive aspect because unlike on campus, response time did not have to be limited due to class time. When conversations were online, more people could respond to topics (Lai, 2002). One important note with online discussions was the lack of social cues in an online environment. In some cases, this resulted in students paying more attention to the content of messages (Lai, 2002). In other instances, students became frustrated with the ambiguities in etiquette and politeness. Most students seemed to enjoy the anonymity and permanent written record in chatrooms as discovered through the following student interviews (Lai, 2002).

I was more than fine with not knowing who I was talking to. That way no judgments could be formed, and it was easy to open up more and speak your mind. I was glad to see that people weren't scared to voice their opinions. (Lai, 2002, p.36)

I don't have to hear the professor lecture and go home and try to remember what they said. I can always go back online and read it again and again and make sure it sinks in as opposed to trying to write down everything the professor says and trying to remember notes or key points of the lecture. (Lai, 2002, p. 36)

The professor prefers to call the class a “virtual” class so as to maintain the conception that the class is a “virtualization” of the conventional class. The virtual class is no less real, nor does it imitate a conventional class (Lai, 2002, p. 34). The classrooms and class schedules are simply more flexible for student and teacher participation in the electronic learning community. The professor has addressed issues that arise from more flexibility such as how often should students and instructors gain access, how often, for how long, and which communications tools would work best in certain circumstances. The process of virtualization of the class removes the constraints of classroom space, class schedule, and face-to-face meetings and turns that freedom into new issues (Lai, 2002). Student comments about the format of the virtual classroom include the following.

I could stay home. I learn better from doing it on my own...from reading the material. I don't have to rush. I have a time frame that I know I have to follow, but still I can do it in the morning, or I can do it at night. (Lai, 2002, p. 35)

It helps you become organized in a way. You know you have a deadline, and you have to meet that deadline, and if you don't, then, okay, that's my grade. It helps you focus on what you have to do. (Lai, 2002, p. 35)

The biggest problem I had was most people waited until Friday or Saturday to do most things, so you couldn't really respond to anybody until then. Since it was the due date, you had to do it on Saturday, so for me it sort of ruined my Saturdays. (Lai, 2002, p. 35)

This course seemed to be successful with “technosocial” students that would take the initiative regarding their education (Lai, 2002, p. 38). The instructor found that many

of the students began to seek out other means of interaction with fellow students such as telephone, e-mail, and instant messenger, as well as face-to-face meetings. One last positive that the professor noted was the potential to help students improve their writing skills and understand the importance of writing about the subject of art due to the largely text-based format of the course (Lai, 2002).

Examples of Distance Learning in Studio Art Courses

Many examples of distance learning in studio art courses are beginning to surface in research circles. For example, a student described how she used local bulletin board systems to complete an independent research project in a class called “Art in the City” at Empire State College in New York. The project involved posting a log of museum and gallery visits in the New York City Metropolitan Area. On-line dialogue was generated by those who read her essays (Gregory, 1997). The following examples are successful courses or programs that involve distance learning and studio art.

Northern Arizona University.

In an example of interaction strategies in a studio art course, a professor taught a course entitled “Drawing and Presentation Techniques of the Twentieth Century.” The course was considered hands-on and taught through interactive television at Northern Arizona University. There were 149 students enrolled in the course that was transmitted to two sites on campus, one remote and to a public access cable channel. The students enrolled in the course came from a wide variety of backgrounds and orientations. Some had substantial backgrounds in art while others had never previously taken an art course. The professor made the expectation of participation known immediately (DeVries, 1996).

In explaining the goals of the class, the students were told that they would share their art assignments across distance using the available technology which was a pad-cam which is a horizontal camera that projects three-dimensional objects onto television screens, three remotely controlled cameras, and five telephone lines for students to call the live broadcast. The interaction between students and the professor and between the students and their peers commenting on art work was pivotal to the overall success of the course. (DeVries, 1996, p. 183)

In order to sustain a high level of interactivity among students in different sites and the professor, several tactics were used that support the Fulford and Zhang (1993, as cited in DeVries, 1996, p. 183) study that explored student satisfaction with instruction in a distance learning course. A split screen was used to allow participants to see and hear each other. Extra points were offered to students if they could be called ahead of class time and told to be prepared to contribute to specific topics – a technique that was done randomly by class roster. As the operators in the control room zoomed in on students that made their comments, the professor complemented their discussions and encouraged everyone to participate (DeVries, 1996).

According to DeVries (1996), the three hour class was broken up with hands-on demonstrations and step-by-step exercises. This created a participatory atmosphere along with breaking up the monotony of a long class. In addition, professors and invited artists were video taped in front of their artwork and the videos were presented during the class with the artist available by telephone to respond to student questions. The instructor was available for communication by e-mail to all students which allowed for instant feedback

from the instructor and the opportunity for the students to discuss projects with the instructor or other students at various locations.

The satisfaction and performance of the course, and how the students learned the materials, were evaluated by anonymous questionnaires. The overall positive and encouraging feedback was collected via e-mail, written comments, and fax. The two most common comments were that the course should be offered in the technology distance environment on a regular basis and the students were satisfied with learning at a distance with the interactive strategies that were employed (DeVries, 1996).

Impact North Carolina.

In a study to promote distance learning in art education, Impact North Carolina implemented a regional collaborative project in 1992. The project was created to explore how ISDN technology and telephone lines can be used to enhance learning and improve teacher education. Teachers and students at three rural public schools and at Appalachian State University were given an ISDN communication infrastructure which provided access to videoconferencing equipment, multimedia workstations, and a variety of software resources that were saved on a LAN file server (Gregory, 1997).

Each multimedia workstation consists of a computer equipped with an ISDN board, a scanner, a digitizing tablet, and software that enables students at one site to use images, text, and voice to communicate with students at another site.

Students prepare slide shows with pictures they have scanned or drawn themselves using a paint program and then present their slideshows to viewers at

another site using the videoconferencing capabilities available. (Gregory, 1997, p. 47)

The students' learning was enhanced by the ability to access a variety of images and information from art museums and other institutions through the internet (Gregory, 1997).

School of Visual Arts in Manhattan.

At one of the largest undergraduate art colleges in the United States, desktop videoconferencing is used for more than 5,000 students. The School of Visual Arts (SVA) in Manhattan uses CLI's Cameo Personal Video systems to allow students and instructors at SVA to discuss artistic concepts and display projects. SVA chose the desktop systems to share art during classes for affordability, convenience, and ease of use. Distance learning is also accomplished through this program. Renowned artists and SVA faculty members David Biedny and Bert Monroy conducted a class on computer-based design from their studios in California. Students in Manhattan could see the artists through the Macintosh-based Cameo systems and watch them work on a large projected display of the computer screen. They were also able to show their work to the instructors and have it critiqued by Biedny and Monroy over video link (Walsh & Reese, 1995).

Distance Learning in Art Education: Successful or Unsuccessful?

There is a great deal of debate about technology and educational reform with distance learning. With colleges and universities rapidly moving courses and entire degree programs to the Internet, some educators are excited while others are apprehensive (Mehlenbacher, Miller, Covington, & Larson, 2000). Several course-related

issues have been researched in online courses. In one study, it was found that learning styles made no difference in perceptions of students regarding the course. A researcher found evidence to advocate for distance learning based on retention rate (Harris & Parrish, 2006). A study showed that students who did well academically in general did well with online courses, and those that did not do well with grade point average did not do well with online instruction (Harris & Parrish, 2006). In a study that was conducted between 1985 and 2002, analysis was conducted on distance education literature regarding achievement, attitude, and retention. The results indicated that many applications of distance learning outperformed their classroom counterparts while many performed poorly in comparison (Bernard et al., 2004). Just like any traditional classroom, virtual classrooms use different strategies for effectiveness.

The Milken Exchange on Education Technology (1998, as cited in Krug, 2004) suggests seven contextual dimensions for gauging the effectiveness of integrating technology within educational settings. These dimensions include:

1. Are learners using technology in ways that deepen their understanding of subject area content and, at the same time, advancing their knowledge of themselves, other peoples, and the world?
2. Is the learning environment designed to engage participants in research-proven learning practices, rigorous curricular content, and contemporary technology?
3. Is the educator fluent with technology and does she/he effectively use technology to the learning advantage of her/his students?

4. Is the education system changing sufficiently to systematically meet the needs of learners in a knowledge based, global society?
 5. Is the school-community relationship one of trust and respect, and is this translating into mutually beneficial, sustainable partnerships in the area of learning technologies?
 6. Are technologies, networks, electronic resources, and support available to meet the educational system's learning goals?
 7. Is there agreement on what success with technology looks like? Are there methods in place, and time scheduled, to assess learning and report results?
- (Krug, 2004, p. 4)

Art educators along with educators in general have reached a crossroads in which they must analyze their own positions, practices, and policies concerning effective use of technology in learning. Technology can not be effective without proper use. "Technology by itself is a hollow god...The answers do not lie in the machines; they lie, as they always have, within ourselves" (Krug, 2004, p. 5). Three areas must be examined for effective use of technology: literacy, fluency, and integration. Technology literacy affects the arts through the use of "appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning and to acquire lifelong knowledge and skills in the 21st Century" (Krug, 2004, p. 3).

Technological fluency is the affect on educational settings and what necessary skills and knowledge are needed for fluency. Finally, technological integration is the main "pressure point" because educators must infuse technology in the educational settings (Krug, 2004, p. 4).

Statement of Problem

My research of recent literature showed that while distance learning in other subject areas has been used successfully for many years, the use of studio art through distance learning was a relatively new and emerging field due to advanced technology and more cyber courses. I believed more research needed to be conducted to find out what techniques were successful or unsuccessful in studio art courses taught through distance learning. The initial problem was to discover what studio art instructors were teaching on-line and how they have changed or adapted studio content to on-line instruction. A strand of inquiry is to learn how an international on-line studio class might change studio art content.

Statement of Hypothesis

The research was based on knowledge obtained during four semesters as a Graduate Teaching Assistant of a studio art course and one semester of participating in a three-credit studio art course through distance learning. The survey questions were compiled from questions that arose while teaching and taking those courses, as well as research discovered during this thesis project. The initial goal was to understand what art instructors were teaching on-line and how they have changed or adapted studio content to on-line instruction. The secondary goal was to learn how an international on-line studio class might change studio art content.

CHAPTER 3: METHOD

Sample

The research study was approved by the East Carolina University Behavioral and Social Sciences Institutional Review Board (See Appendix A). Research was conducted through Internet Boolean searches to find colleges and universities that a) taught studio art courses and b) possibly taught studio art courses through distance learning. When an instructor that could be a research participant was located, a contact name, e-mail, and telephone number were added to a list of the target research population. A final list of 110 American contacts and 39 international contacts were compiled. In addition to the list assembled, the International Society for Education through Art (InSEA) an international, professional art education organization, agreed to send the survey out to their membership via listserv. This action increased the number of international contacts by 687 potential participants (J. Sanders, personal electronic communication, July 22, 2009). The letter describing the research project and the survey link were e-mailed to the contacts compiled through research as well as the InSEA list-serve.

Instrument

There were four sections of the survey. The first section was *Background Information* which requested information about the instructors' professional backgrounds. The second section was *Online Studio Art Course Information*. This section inquired about the online studio art courses that the instructors taught including the level of student, the amount of coursework, and the tools and techniques used to teach the courses. The third section was *Opinions on Studio Art Courses*. In this section of the survey the

professors could discuss the success or issues they have had with teaching online studio art courses. The fourth and final section of the survey was *Effects of International Online Studio Art Courses*. The purpose of this section was to find out opinions of instructors with regards to effects of teaching an international population of students through distance learning. The following is the letter and survey that the target population received.

Letter.

April 9, 2009

Dear Professor,

I am presently working on my Master of Education in Art Education at East Carolina University. As part of my degree requirements, I have began an educational research project that will help me learn more about trends and techniques of teaching studio art courses through distance learning. The purpose of the research is to provide necessary and valuable information about the topic to assist instructors in their teaching endeavors. Surveys will be completed by an international group of college and university instructors that currently teach studio art courses through virtual classrooms. The survey covers methods of curriculum and instruction, background information about teaching art courses online, speculation about the effects of teaching an international student population, and details about educational resources and projects.

If you are receiving this survey letter, it is because your name was linked to online studio art courses either because you are a potential professor that could take the survey, or you are a dean or department chair that could forward the survey to potential professors. Please forward this link to any instructor in your department or university that teaches or has taught a studio art course through distance learning. The feedback I receive through this survey will provide instructors or other educational representatives with ideas and methods to solve problems in art education through distance learning in their own settings.

I realize your schedule is busy and your time is valuable. However, I hope that the 15 minutes it will take you to complete the survey, or forward the link to potential professors,

will help provide strategies that are successful in teaching studio art courses through distance learning.

Please simply click on the following link to begin the survey. *Note: Each question must be answered for the survey to advance.*

http://www.surveymonkey.com/s.aspx?sm=lESJ1N0ni12JPgY9nB5jZA_3d_3d

Thank you in advance for your participation. I would appreciate your completion of the survey by May 8, 2009. If you have any questions about the study, you can contact me at 434-547-8391 or through e-mail at ksj0706@ecu.edu.

Yours truly,

Kathryn E. Sheldon

Kathryn E. Sheldon

East Carolina University

This research study, UMCIRB 09-0321, was approved by the East Carolina University Behavioral and Social Sciences Institutional Review Board. Please call 252-744-2914 with questions or concerns.

.

Survey.

International Trends and Techniques Used to Teach Studio Art	
1. Background Information	
1. In which country is your university or college located?	
Country:	<input type="text"/>
* 2. Which department are you a member of at your university or college?	
	<input type="text"/>
* 3. How many total years have you been teaching?	
<input type="radio"/>	1-5 years
<input type="radio"/>	6-10 years
<input type="radio"/>	11-15 years
<input type="radio"/>	16-20 years
<input type="radio"/>	21-25 years
* 4. How many years have you been teaching studio art courses online?	
<input type="radio"/>	1-5 years
<input type="radio"/>	6-10 years
<input type="radio"/>	11-15 years
* 5. Did you teach studio art courses in the classroom before switching to online instruction?	
<input type="radio"/>	Yes
<input type="radio"/>	No
* 6. When you began teaching online art courses, which of the following helped you gain the knowledge needed to provide technological integration? (Check all that apply)	
<input type="checkbox"/>	The college/university provided in-service courses on distance learning courses
<input type="checkbox"/>	I took courses on my own time to learn about distance learning instruction
<input type="checkbox"/>	I already had the technological knowledge required to teach a distance learning course
<input type="checkbox"/>	Other (Please list another way you obtained knowledge for technological integration)
	<input type="text"/>

International Trends and Techniques Used to Teach Studio Art**2. Online Studio Art Course Information**

*** 1. How many online studio art courses do you teach per semester?**

- 1
 2
 3
 4
 5 or more

*** 2. Please check the level of students that you teach. (Check all that apply)**

- Undergraduate students
 Graduate students
 Other (please specify)

*** 3. Please check the type of online class you teach. (Check all that apply)**

- Studio Art for art majors
 Studio Art for non-art majors
 Other (please specify)

*** 4. How do you offer your art courses through the university or college at which you work?**

- Hybrid class: traditional classroom and distance learning
 Distance learning only

International Trends and Techniques Used to Teach Studio Art

*** 5. How much time per week do you spend preparing for each 3 credit hour online course?**

- less than 30 minutes
 between 30 minutes and an hour
 between 1 and 3 hours
 between 3 and 5 hours
 more than 5 hours
 Other (please specify)

*** 6. What is the maximum number of students you can have in your 3 credit hour online course(s)?**

*** 7. What is the average number of students you typically have in your 3 credit hour online course(s)?**

*** 8. Do you utilize teaching assistants from your university that contribute to grading or support for your 3 credit hour online course(s)? If yes, how many TAs do you typically request?**

*** 9. What is your estimate of how many average hours your students spend working on the coursework you provide per course?**

- less than 30 minutes
 between 30 minutes and an hour
 between 1 and 3 hours
 between 3 and 5 hours
 more than 5 hours
 we have never conducted a student survey at the end of the course
 Other (please specify)

International Trends and Techniques Used to Teach Studio Art

*** 10. Below is a list of readily available virtual resources. Which strategies do you use for basic communication, lecture, and teaching studio methods for your online art classroom? (Please check all that apply)**

	Constantly utilized	Frequently utilized	Often utilized	Rarely utilized	N/A
E-mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course Management Software (Blackboard, Moodle, WebCT, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Virtual meeting programs (Centra, Adobe Meeting, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chat programs (Skype, AIM, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>				

*** 11. Below is a list of educational resources. Which do you use for your online art classroom? (Please check all that apply)**

	Constantly utilized	Frequently utilized	Often utilized	Rarely utilized	N/A
Websites/ Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Textbook(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Textbook(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suggested book(s) for reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online suggested book(s) for reading	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online article(s) for review	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Virtual library (Citation Linker, Digital Collections, E-Journal Portal, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>				

International Trends and Techniques Used to Teach Studio Art

* 12. Which educational resources have you created or do you provide for your online art classroom? (Please check all that apply)

	Constantly utilized	Frequently utilized	Often utilized	Rarely utilized	N/A
Class website (other than what is provided by class management software)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CD-ROMS or DVD-ROMS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Videos of instructor completing demonstration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Videos of professional artists at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Illustrations to show step-by-step instructions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Animations to show step-by-step instructions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>				

* 13. Which graphics programs do you require or provide for your students in your online art classroom? (Please check all that apply)

	Required	Provided	Optional	N/A
Paint programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video capture software	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Animation software	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Web design software	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>			

* 14. Which devices do you require or provide for your students in your online art classroom? (Please check all that apply)

	Required	Provided	Optional	N/A
Digital camera	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video capture device	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scanner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>			

International Trends and Techniques Used to Teach Studio Art

*** 15. How is technology used in your online art education course? (Please check all that apply)**

	Constantly utilized	Frequently utilized	Often utilized	Rarely utilized	N/A
Create computer generated art	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication with instructor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication with other students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research essays or papers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Combine digital images with other mediums in studio art	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Create virtual art exhibits of studio art	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>				

*** 16. What materials do you require students purchase for their art projects? (Please check all that apply)**

	Required	Optional	N/A
various papers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
drawing pencils	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
paint and brushes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
canvases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
charcoals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pastels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
oven-bake clay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
scissors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
compass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ruler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>		

International Trends and Techniques Used to Teach Studio Art

*** 17. What materials do you provide students for their art projects? (Please check all that apply)**

	Provided	Optional	N/A
various papers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
drawing pencils	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
paint and brushes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
canvases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
charcoals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pastels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
oven-bake clay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
scissors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
compass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ruler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

*** 18. How do your students submit their art projects?**

- online submission (via e-mail, dropbox, etc.) or scan of physical artwork
- mail-in submission (via USPS, UPS, FedEx, etc.) or hand-delivery of physical artwork
- both online submission and mail-in/hand delivery submission
- Other (please specify)

International Trends and Techniques Used to Teach Studio Art**3. Opinions on Studio Art Courses**

*** 1. Do you discuss with your students the ethical issues involved with creating artwork that uses images from the internet or from printed materials?**

Yes

No

Other (please specify)

International Trends and Techniques Used to Teach Studio Art

*** 2. The Milken Exchange on Education Technology (1998, as cited in Krug, 2004) suggests seven contextual dimensions for gauging the effectiveness of integrating technology within educational settings. Please answer the following questions based on the courses you teach with a yes or no answer:**

	Yes	No
1. Are learners using technology in ways that deepen their understanding of subject area content and, at the same time, advancing their knowledge of themselves, other peoples, and the world?	<input type="radio"/>	<input type="radio"/>
2. Is the learning environment designed to engage participants in research-proven learning practices, rigorous curricular content, and contemporary technology?	<input type="radio"/>	<input type="radio"/>
3. Is the educator fluent with technology and does she/he effectively use technology to the learning advantage of her/his students?	<input type="radio"/>	<input type="radio"/>
4. Is the education system changing sufficiently to systematically meet the needs of learners in a knowledge based, global society?	<input type="radio"/>	<input type="radio"/>
5. Is the school-community relationship one of trust and respect, and is this translating into mutually beneficial, sustainable partnerships in the area of learning technologies?	<input type="radio"/>	<input type="radio"/>
6. Are technologies, networks, electronic resources, and support available to meet the educational system's	<input type="radio"/>	<input type="radio"/>

International Trends and Techniques Used to Teach Studio Art

learning goals?

7. Is there agreement on what success with technology looks like?

Are there methods in place, and time scheduled, to assess learning and report results?

*** 3. Based on your answers above, do you feel that online art instruction can be as successful as traditional face-to-face art instruction?**

Yes

No

*** 4. What do you find most challenging about online studio art instruction?**

Why?

*** 5. What do you find most successful about online studio art instruction?**

Why?

*** 6. Do you think that online art instruction will become more prevalent in the future? Why?**

*** 7. Do you consider computer-generated art to be: (check all that apply)**

a delivery system for instruction in art

an art form itself

a research tool for art education

Other (please specify)

International Trends and Techniques Used to Teach Studio Art

4. Effects of International Online Studio Art Courses

- * 1. Online studio art education opens the possibility of teaching an international population of students. Please answer the following list of questions based on your personal opinion.

What would be the effects of teaching an international population of students?

- * 2. How would your curriculum change?

- * 3. How would your studio projects change?

- * 4. How would your assessment of students change?

- * 5. What problems do you envision?

- * 6. What benefits do you envision?

Experimental Design

This research was a self-report research study. Questions were created based on information about teaching and taking studio art courses through distance learning. A great deal of time and effort were put into creating the questions to generate an effective study. The same questions were asked of all participants to obtain comparable data.

Procedure

The survey was conducted via the website called [surveymonkey.com](https://www.surveymonkey.com). The participants simply clicked on the link that was attached in the letter sent via e-mail and the survey began. [Surveymonkey.com](https://www.surveymonkey.com) then compiled the research data on their server to be accessed by only the person that created the survey. Collection of responses to the questionnaires took place through the Internet for efficient response time and easy access for participants. The target population was allowed four weeks to complete the survey. A reminder e-mail was sent one week prior to the deadline. The collection of responses was stored on a server through [surveymonkey.com](https://www.surveymonkey.com) for analysis.

CHAPTER 4: RESULTS

Total Response Rate

The response rate to the survey was five percent. As stated in the Methods section, 110 American contacts, 39 international contacts, and 687 contacts through the InSEA listserv were all part of the target population to participate in the survey (J. Sanders, personal electronic communication, July 22, 2009). From the universities and colleges outside of the United States, I received seven e-mails that stated studio classes were not offered through distance learning. I also received eight e-mails from American universities and colleges that confirmed they did not teach studio art courses through distance learning. Along with those e-mails declining participation, I had 24 participants take the survey online. This accounts for 39 participants in the study out of the 836 that were contacted.

It was essential that the instructors that completed the survey be studio art professors. One of the instructors contacted did respond by asking if they could participate if they taught art appreciation to which I had to respond no based on the type of research I was conducting. Another instructor made sure to clarify the term “studio” art before forwarding the letter and survey on to the faculty in the department. There were also questions tailored to studio art in the survey to ensure that the instructors completing the survey were actually studio art professors that taught online courses.

Background Information

The first question in the survey was “In which country is your university or college located?” One hundred percent of the participants completed this question.

Seventeen instructors were based in the United States, three instructors were from Australia, and the other four instructors were based out of Scotland, China, Japan, and Canada. In the second question, 22 instructors listed the department for which they worked at their respective universities while two instructors decided to remain anonymous. Of the 22 responses, 17 professors listed their department as part of the Art and Design field. Five professors listed the Education or Liberal Arts field.

The third question on the survey was “How many total years have you been teaching?” All of the professors responded to this question. Eight respondents stated that they had been teaching for 21-25 years, six claimed 1-5 years of teaching, four claimed 6-10 years, four claimed 11-15 years, and two claimed 16-20 years teaching. The fourth question expanded on the years of teaching by asking how long they had been teaching studio art courses online. Eighty-three percent of instructors responded that they had been teaching studio art courses for 1-5 years, while 12 percent listed 6-10 years and only one professor listed that he or she had been teaching online studio art courses for 11-15 years. However, it was noted later in the survey that two of the professors that listed the 1-5 years teaching studio art did not in fact teach studio art courses through distance learning, so that percentage should be lowered to 75% of instructors.

The next question asked instructors if they taught studio art courses in the classroom before switching to online instruction. Sixty-six percent did teach studio art courses in the classroom before switching to online, while 25% of instructors have always taught online and not in the classroom. Question six expanded on the switch from classroom to online instruction by asking how the instructors gained the knowledge to

make the switch. Fifty-four percent of the instructors stated that their college or university provided in-service courses on distance learning while 25% listed they took courses on their own time about distance learning instruction. Another 12% stated they already had the technological knowledge required to teach distance learning courses. Four professors expanded on the choices listed. One instructor stated that he or she was a Teaching Assistant so therefore learned through the professor he or she was assisting. Another professor stated that he or she attended the E-Learning Institute which provided technical and instructional support. A third professor stated that he or she learned from previous course instructors about teaching studio art courses online. The fourth professor listed that he or she added online studio art courses to his or her original studio art instruction load. The course and technology were co-constructed by the university and the professor to meet the instructor's course requirements.

Online Studio Art Course Information

From question seven and following, nine professors began skipped the questions; therefore, there were only 15 participants that completed the survey. Question seven on the survey asked professors how many online studio art courses they taught per semester to gather an understanding of the course load for professors. Sixty percent of the instructors taught only one online studio art course per semester. Two professors taught two online courses, two taught three online courses, and two taught five or more online courses per semester.

To better understand the type of students being taught in online studio art courses, question eight asked professors what level of student they taught. One hundred percent of

the professors taught undergraduate students, while 33% taught graduate and undergraduate students. One professor stated that he or she teaches high school students through an independent study course as well as graduate and undergraduate students. Question nine on the survey broke down the type of student even more by asking whether the courses were for studio art majors or non-art majors. Thirty-three percent of the courses were for art majors while 60 percent were for non-art majors. Three professors expanded on the type of course they taught. One stated that the course was studio art for education major and minors. Another professor listed his or her course as *Grant Writing for the Arts*.

Question ten of the survey asked whether the courses taught were hybrid courses with traditional classroom combined with distance learning or distance learning only. Fifty-three percent reported the class as a hybrid course while just under 47% reported the course to be distance-learning only. The next question asked how much time per week each professor spent preparing for each three-credit-hour online course. One professor reported less than 30 minutes, three professors reported between 30 minutes and one hour, three professors reported between 1 and 3 hours, three instructors reported between 3 and 5 hours, four instructors reported more than five hours, and one instructor did not respond as he or she was the Teaching Assistant mentioned previously.

Questions 12 and 13 of the survey asked about the maximum number of students in each three-credit-hour online studio art course and the average number of students in each course respectively. Table 1 lists the responses.

Table 1: Number of students enrolled in online studio art courses

Maximum number of students:	Average number of students:
15	10
50	50
24	24
6	4
180	100
160	100-150
75 (way too many!!)	75
Unlimited but 30 per instructor or TA	100
No limit for DL course/ 24 for hybrid course	Course not run by semesters – students add at any time and follow their own pace and materials
25	10
20	20
26	24
20	18

The next question related to the number of students enrolled by asking the instructors if they requested or utilized teaching assistants to contribute to grading or support for their online studio art courses. Seven instructors reported that no teaching assistants were used or requested, while seven reported that they did use teaching

assistants, and one did not answer the question. Of the seven that did use teaching assistants, all seven stated that they averaged one teaching assistant per course.

Question fifteen asked the professors how much time, on average, their students worked on the coursework in their online courses. While 27% had never conducted a student survey at the end of the course, one professor estimated that students spent 10-15 hours per week on coursework, one estimated six hours, one listed an average of more than five hours, two estimated between three and five hours, three estimated between one and three hours, one professor stated between thirty minutes and an hour, and two professors listed less than 30 minutes of coursework.

The next few questions in the survey regarded strategies, resources, and tools used in online studio art courses to better understand basic communication, lecture, and teaching studio methods. To better understand what professors were using in their courses, questions 16-23 are listed in table form below.

Table 2: Virtual Resources

16. Below is a list of readily available virtual resources. Which strategies do you use for basic communication, lecture, and teaching studio methods for your online art classroom? (Please check all that apply)							
	Constantly utilized	Frequently utilized	Often utilized	Rarely utilized	N/A	Rating Average	Response Count
E-mail	64.3% (9)	28.6% (4)	0.0% (0)	0.0% (0)	7.1% (1)	1.31	14
Course Management Software (Blackboard, Moodle, WebCT, etc.)	80.0% (12)	13.3% (2)	0.0% (0)	0.0% (0)	6.7% (1)	1.14	15
Virtual meeting programs (Centra, Adobe Meeting, etc.)	14.3% (2)	14.3% (2)	28.6% (4)	28.6% (4)	14.3% (2)	2.83	14
Chat programs (Skype, AIM, etc.)	7.1% (1)	21.4% (3)	21.4% (3)	28.6% (4)	21.4% (3)	2.91	14
Other (please specify)							2
answered question							15
skipped question							9

*The two comments under “Other” were:

1. Discussion, Non-synchronous
2. Courses delivered through websites designed by faculty who develop content and instructional designers who develop site architect.

Table 3: Readily Available Educational Resources

17. Below is a list of educational resources. Which do you use for your online art classroom? (Please check all that apply)							
	Constantly utilized	Frequently utilized	Often utilized	Rarely utilized	N/A	Rating Average	Response Count
Websites/ Internet	73.3% (11)	13.3% (2)	0.0% (0)	13.3% (2)	0.0% (0)	1.53	15
Textbook(s)	60.0% (9)	13.3% (2)	13.3% (2)	13.3% (2)	0.0% (0)	1.80	15
Online Textbook(s)	21.4% (3)	14.3% (2)	7.1% (1)	35.7% (5)	21.4% (3)	2.73	14
Suggested book(s) for reading	20.0% (3)	46.7% (7)	13.3% (2)	20.0% (3)	0.0% (0)	2.33	15
Online suggested book(s) for reading	14.3% (2)	14.3% (2)	21.4% (3)	35.7% (5)	14.3% (2)	2.92	14
Online article(s) for review	40.0% (6)	20.0% (3)	13.3% (2)	20.0% (3)	6.7% (1)	2.14	15
Virtual library (Citation Linker, Digital Collections, E-Journal Portal, etc.)	40.0% (6)	20.0% (3)	13.3% (2)	26.7% (4)	0.0% (0)	2.27	15
Other (please specify)							2
answered question							15
skipped question							9

*The two comments under “Other” were:

1. I prepare teaching materials on CD ROM_ includes readings.
2. You Tube

Table 4: Educational Resources Created by Instructor

18. Which educational resources have you created or do you provide for your online art classroom? (Please check all that apply)							
	Constantly utilized	Frequently utilized	Often utilized	Rarely utilized	N/A	Rating Average	Response Count
Class website (other than what is provided by class management software)	61.5% (8)	15.4% (2)	0.0% (0)	7.7% (1)	15.4% (2)	1.45	13
CD-ROMS or DVD-ROMS	27.3% (3)	27.3% (3)	0.0% (0)	0.0% (0)	45.5% (5)	1.50	11
Videos of instructor completing demonstration	35.7% (5)	21.4% (3)	7.1% (1)	14.3% (2)	21.4% (3)	2.00	14
Videos of professional artists at work	16.7% (2)	8.3% (1)	41.7% (5)	16.7% (2)	16.7% (2)	2.70	12
Illustrations to show step-by-step instructions	46.7% (7)	26.7% (4)	13.3% (2)	13.3% (2)	0.0% (0)	1.93	15
Animations to show step-by-step instructions	28.6% (4)	28.6% (4)	7.1% (1)	28.6% (4)	7.1% (1)	2.38	14
Other (please specify)							2
answered question							15
skipped question							9

*The two comments under “Other” were:

1. There is more emphasis on pedagogy than studio art training.
2. Social networking pages (NING)

Table 5: Graphics Programs Used

19. Which graphics programs do you require or provide for your students in your online art classroom? (Please check all that apply)						
	Required	Provided	Optional	N/A	Rating Average	Response Count
Paint programs	26.7% (4)	6.7% (1)	20.0% (3)	46.7% (7)	1.88	15
Video capture software	14.3% (2)	14.3% (2)	14.3% (2)	57.1% (8)	2.00	14
Animation software	21.4% (3)	7.1% (1)	21.4% (3)	50.0% (7)	2.00	14
Web design software	14.3% (2)	14.3% (2)	21.4% (3)	50.0% (7)	2.14	14
Other (please specify)						2
answered question						15
skipped question						9

*The two comments under “Other” were:

1. They do not need graphics programs for assignments.
2. Varies based on course topic.

Table 6: Devices Required or Provided

20. Which devices do you require or provide for your students in your online art classroom? (Please check all that apply)						
	Required	Provided	Optional	N/A	Rating Average	Response Count
Digital camera	71.4% (10)	7.1% (1)	7.1% (1)	14.3% (2)	1.25	14
Video capture device	35.7% (5)	7.1% (1)	28.6% (4)	28.6% (4)	1.90	14
Scanner	28.6% (4)	14.3% (2)	42.9% (6)	14.3% (2)	2.17	14
Other (please specify)						2
answered question						15
skipped question						9

*The two comments under “Other” were:

1. Headset/ microphone
2. Varies based on course topic.

Table 7: Uses of Technology

21. How is technology used in your online art education course? (Please check all that apply)							
	Constantly utilized	Frequently utilized	Often utilized	Rarely utilized	N/A	Rating Average	Response Count
Create computer generated art	26.7% (4)	20.0% (3)	20.0% (3)	13.3% (2)	20.0% (3)	2.25	15
Communication with instructor	80.0% (12)	20.0% (3)	0.0% (0)	0.0% (0)	0.0% (0)	1.20	15
Communication with other students	60.0% (9)	26.7% (4)	6.7% (1)	6.7% (1)	0.0% (0)	1.60	15
Research essays or papers	40.0% (6)	33.3% (5)	6.7% (1)	13.3% (2)	6.7% (1)	1.93	15
Combine digital images with other mediums in studio art	26.7% (4)	26.7% (4)	13.3% (2)	13.3% (2)	20.0% (3)	2.17	15
Create virtual art exhibits of studio art	21.4% (3)	14.3% (2)	7.1% (1)	35.7% (5)	21.4% (3)	2.73	14
					Other (please specify)		0
					answered question		15
					skipped question		9

Table 8: Materials Students Must Purchase

22. What materials do you require students purchase for their art projects? (Please check all that apply)					
	Required	Optional	N/A	Rating Average	Response Count
various papers	64.3% (9)	21.4% (3)	14.3% (2)	1.25	14
drawing pencils	57.1% (8)	28.6% (4)	14.3% (2)	1.33	14
paint and brushes	46.7% (7)	33.3% (5)	20.0% (3)	1.42	15
canvases	15.4% (2)	38.5% (5)	46.2% (6)	1.71	13
charcoals	46.7% (7)	33.3% (5)	20.0% (3)	1.42	15
pastels	40.0% (6)	33.3% (5)	26.7% (4)	1.45	15
oven-bake clay	21.4% (3)	42.9% (6)	35.7% (5)	1.67	14
scissors	42.9% (6)	35.7% (5)	21.4% (3)	1.45	14
compass	28.6% (4)	35.7% (5)	35.7% (5)	1.56	14
ruler	46.2% (6)	38.5% (5)	15.4% (2)	1.45	13
Other (please specify)					4
answered question					15
skipped question					9

*The four comments under “Other” were:

1. They may choose the medium that they think will best convey their ideas.
2. Ink
3. Glue
4. Varies based on course topic.

Table 9: Materials Provided for Students

23. What materials do you provide students for their art projects? (Please check all that apply)					
	Provided	Optional	N/A	Rating Average	Response Count
various papers	26.7% (4)	20.0% (3)	53.3% (8)	1.43	15
drawing pencils	20.0% (3)	26.7% (4)	53.3% (8)	1.57	15
paint and brushes	26.7% (4)	20.0% (3)	53.3% (8)	1.43	15
canvases	13.3% (2)	26.7% (4)	60.0% (9)	1.67	15
charcoals	13.3% (2)	26.7% (4)	60.0% (9)	1.67	15
pastels	20.0% (3)	20.0% (3)	60.0% (9)	1.50	15
oven-bake clay	20.0% (3)	20.0% (3)	60.0% (9)	1.50	15
scissors	13.3% (2)	26.7% (4)	60.0% (9)	1.67	15
compass	13.3% (2)	26.7% (4)	60.0% (9)	1.67	15
ruler	13.3% (2)	20.0% (3)	66.7% (10)	1.60	15
Other (please specify)					5
answered question					15
skipped question					9

*The five comments under “Other” were:

1. Traditional clay, wood figure to draw, sharpie, watercolors & acrylics.
2. Provided to on campus students and off-campus intensive school (on campus periodically) students.
3. They must find or purchase all of their own materials.
4. No supplies are provided.
5. All supplies are student purchased.

Question 24 inquired how students submitted their art projects to instructors in online studio art courses. Sixty percent of the instructors stated that students submitted work through online submission (either via e-mail, digital dropbox, etc.) or a scan of the physical artwork. Forty percent of the instructors required both online submission and mail-in or hand-delivery submission.

Opinions of Studio Art Courses

This section of the survey was related to ethical and success issues with teaching studio art courses online. Question 25 of the survey asked if professors discuss ethical issues involved with creating artwork using images from the internet or from printed materials. Fifty-eight percent stated that they did discuss ethical issues while 42% listed that they did not discuss ethical issues.

Question 26 of the survey was based on the seven contextual dimensions for gauging effectiveness of integrating technology within educational settings as set forth by the Milken Exchange on Education Technology (Krug, 2004, p. 4). The questions were meant to determine if the instructors felt that their courses were using technology effectively. The responses are listed in Table 10. Based on the answers to question 26, 66% of the professors felt their online art instruction was as successful as traditional face-to-face art instruction. Thirty-three percent of the instructors felt their online course were not as successful as traditional classroom art instruction.

Table 10: Effectiveness of Integrating Technology

26. The Milken Exchange on Education Technology (1998, as cited in Krug, 2004) suggests seven contextual dimensions for gauging the effectiveness of integrating technology within educational settings. Please answer the following questions based on the courses you teach with a yes or no answer:			
	Yes	No	Response Count
1. Are learners using technology in ways that deepen their understanding of subject area content and, at the same time, advancing their knowledge of themselves, other peoples, and the world?	91.7% (11)	8.3% (1)	12
2. Is the learning environment designed to engage participants in research-proven learning practices, rigorous curricular content, and contemporary technology?	83.3% (10)	16.7% (2)	12
3. Is the educator fluent with technology and does she/he effectively use technology to the learning advantage of her/his students?	91.7% (11)	8.3% (1)	12
4. Is the education system changing sufficiently to systematically meet the needs of learners in a knowledge based, global society?	66.7% (8)	33.3% (4)	12
5. Is the school-community relationship one of trust and respect, and is this translating into mutually beneficial, sustainable partnerships in the area of learning technologies?	66.7% (8)	33.3% (4)	12
6. Are technologies, networks, electronic resources, and support available to meet the educational system's learning goals?	91.7% (11)	8.3% (1)	12
7. Is there agreement on what success with technology looks like?	50.0% (6)	50.0% (6)	12
Are there methods in place, and time scheduled, to assess learning and report results?	81.8% (9)	18.2% (2)	11

Questions 28 and 29 asked the instructors to discuss what they found most challenging and most successful about online art instruction. The following bulleted lists are compilations of their responses.

What do you find most challenging about online studio art instruction?

- The virtual images and its qualities compared to material and physical objects.
- Students often have to send documents over and over again as the version they send is not compatible with my computer, i.e., the new Microsoft office ".docx." I ask students to send .jpg and .doc only, but they often forget, or do not realize they are sending an .rtf or .docx. The back and forth takes a lot of extra time. Giving proper assessment feedback takes a lot of time.
- Students need more direct on one help as they are developing projects and there is not enough sharing of experience with other members.
- The interaction between students and plagiarism.
- Being able to know that students understand what they are supposed to be doing. So many levels of students in the same class.
- The support of faculty who are skeptical about teaching art online.
- Establishing a relationship with students.
- Critique of student work.

What do you find most successful about online studio art instruction?

- Digital platform and it allows the poorer drawers to extend their conceptual skills in very supported ways.
- The students have almost the same experience as on-campus students and I can see the excitement they experience learning a new thing that help them be better teachers.

- It reaches more people who are not able to be on campus for all sorts of reasons.
- Australia has a large regional/rural population that is able to access on-line resources and training.
- Time and resources.
- That the students themselves are sometimes surprised at their own enjoyment and ability to do artworks in this manner.
- The quality of the curriculum and instruction because of its consistency and accessibility via distance.
- It helps with course structure and organization.
- The ability of those who cannot get to campus to still participate and earn college credits.

Question 30 inquired as to whether the professors felt that online art instruction would become more prevalent in the future. The following bulleted lists contains their responses.

Do you think that online art instruction will become more prevalent in the future?

- Not on its own, I would not like to give up the traditional studio completely at this point in time.
- Yes, because it replaces driving long distances and it can be done after "normal" work hours.
- Yes, because it is financially cost effective for universities.
- Yes. Because it could have much more potential of social networking based on Web 2.0 technology.
- Of course. \$\$\$\$
- Yes because the production of art will continue to use digital tools.

- Maybe.
- Yes, as technology increases, and abilities to communicate work better.

The last question in this section of the survey was a question about how instructors viewed computer-generated art because research shows that professors tended to have different views on this subject. Four of the instructors considered computer-generated art to be all three listed options: a delivery system for instruction in art, an art form itself, and a research tool in art education. Two of the instructors stated that computer-generated art was only an art form itself and a research tool in art education. Three of the instructors listed computer-generated art as an art form only, and three instructors listed it as a delivery system for instruction in art only. One professor listed computer-generated art as a delivery system and an art form itself.

Effects of International Online Studio Art Courses

The last section of this survey was geared toward recognizing the impacts of international study with online studio art courses. Question 32 asked what the instructors believed would be the effects of teaching an international population of students. Questions 33, 34, and 35 asked for instructors to discuss how their curriculum, studio projects, and assessment of students would change. Questions 36 and 37 asked what problems and benefits the instructors envisioned. Because these were open-ended questions, the following lists have been compiled to list the answers submitted.

What would be the effects of teaching an international population of students?

- Significant cross-cultural understandings and image transfer.

- Authentic communication across borders.
- A greater multicultural outlook.
- It could be an excellent opportunity to learn different culture through online.
- Better understanding of the "other".
- Cultural exchange of images and ideas.
- Language difficulties.

How would your curriculum change?

- To a more inclusive aesthetic.
- More focus on possible second language barriers.
- Curriculum would be less context specific. This is problematic because of professional standards requirements for teacher training within the state.
- More interactive format, for example between students by using web 2.0 technology.
- Not a lot.
- Content that was less ethnocentric.
- Language and assignments would become more inclusive.

How would your studio projects change?

- As I do now they would remain open and developed from personal interest.
- Do not foresee change to projects.
- More site specific projects would have to be developed.

- Providing students with more various topics and genres of visual arts.
- Very little.
- By virtue of the materials and techniques of other cultures.
- Language and assignments would become more inclusive.

How would your assessment of students change?

- Criteria must remain open.
- Do not foresee change to assessment, but perhaps using most descriptive language to meet needs of people from other cultures.
- Not sure- maybe more open- ended forms of assessment would be needed.
- I would like to have students comment to their colleagues's artwork.
- Rather than the ethnocentric bias of the instructor, students' engaged in critique could yield multivalent forms of assessment.
- Language and assignments would become more inclusive

What problems do you envision with teaching an international population of students?

- The sharing of physicality and objects.
- Same, do students do their own work.
- Communication problems.
- Plagiarism.
- Communication issues.
- Resistance to being open and flexible as a teacher to allow for multivalent cultural perspectives and expressions.

- Language.
- Biggest problem is students' limited access to technology. They may have the basics, but would not be able to do more as necessary.

What benefits do you envision with teaching an international population of students?

- Sustainable citizenship as it is informed by artistic fields of research, expression and communication.
- Increased cross-cultural exchange, enrich education for all.
- New ideas and approaches to teaching art would be brought forward.
- More interaction among students' artworks, artists, students.
- Better understanding of the "other".
- Open cultural exchanges among students and teachers through art making.
- Widen class perspectives.
- Ability to communicate cross culturally and globally. As our world becomes smaller this becomes more and more important.

CHAPTER 5: DISCUSSION

Total Response Rate

The total response rate was very low. According to research by Quality Education Data in the mid-90s, most distance education courses were based on science, math, and foreign language. The reason for the low participation in the study could be that there are not that many professors teaching studio art through online learning.

There is also the issue that many professors believe that studio art should be in the classroom. My research showed that many instructors in the field of art tend to reject technological changes based on the perception that humans make art and machines do not (Hicks, 1993). According to the Handbook for the National Association of Schools of Art and Design (NASAD, 2008), an average of three hours of studio/laboratory time and space per credit hour is required for studio courses, which is much more than an average lecture course that meets one hour per credit hour. This means that interaction is key to success in studio art courses. Therefore, most studio art professors may find it especially challenging to achieve successful interaction in studio art cyber courses. A common sentiment among art professors may follow these professors' responses to my survey.

...Our art professors prefer a direct approach to and contact with the students and their works (it is a class system, a kind of mutual election)... (Professor, personal electronic communication, May 27, 2009)

The distance between faculty and students in the...department...usually does not exceed thirty feet – that of a large studio or seminar room. (Professor, personal electronic communication, April 10, 2009)

Correlation Between Instructors' Survey Answers

There were eight professors that completed the full survey. I analyzed the data to look for correlations between those professors. Two were from Australia while the other six were American professors. Five of the professors had been teaching more than a decade which I felt gave good perspective because they have seen changes in pedagogical practices and technology through the years. Only two of the professors stated that they did not teach studio art in the classroom before switching to online learning. This fact also brought credibility to the research because most of the professors have taught in both formats.

Classroom Instruction Data

The information about the number of students enrolled in the classes was split evenly. Seven of the online instructors had an average class size of 17 students. This was comparable to the average classroom studio art class of 15 to 25 students according to guidelines set forth by the Handbook for National Association of Schools of Art and Design (NASAD, 2008). This would allow for a similar amount of interaction with students as what could be accomplished in a classroom environment. However, five of the instructors had an average of 75 students in their course, and one professor did not have a limit on the number of students in the online course. These numbers were closer to

a larger lecture course enrollment. I did find that the professors with the very large courses utilized teaching assistants to distribute the workload.

According to Gregory (1997), I found that e-mail and electronic blackboard were the two most commonly used tools for course management the late 1990s. The same trend was still accurate more than a decade later in 2009. Course management software to posts notices, assignments, and comments, and e-mail to communicate with the professor and other students were the most commonly used tools in the online courses. Ninety-three percent of the surveyed professors utilized Blackboard, Moodle, WebCT, or some other type of management program to teach their courses. Virtual meeting programs and chat programs were secondary tools listed by the instructors. In 1996, DeVries considered computer conferencing, e-mail and electronic bulletin boards to be high-end interactive strategies that provide exciting, memorable, and rewarding experiences for students though being more expensive and requiring advanced technology. Instructors have better access to software for conducting virtual meetings and computer conferencing because of the improved technology since the mid-1990s.

In my Review of Literature, I listed ways in which computers can assist instruction in the classroom through presentation, drill and practice, simulation, games, and art production. The format can be improved through technology because learning can be enhanced by audio, text, animation, color, video and graphics. I also stated that the linear or hierarchical sequence of traditional text could be eliminated so students could access and associate information in any order (Cason, 1998). In my research study, I found that the majority of professors had students use textbooks, suggested book readings,

online articles, and virtual libraries. Eighty percent of professors had students write research essays or papers using these technologies. Seventy-seven percent of the professors created their own class websites to follow their courses, while 54% created CD-ROMs or DVD-ROMs to send to students. My research showed that more than 50% of the professors created instruction videos and approximately 73% created instructional illustrations. Two tools that were not listed on the survey but that are being utilized by professors were You Tube and Social Networking Websites. Between the options listed on the survey and those added by professors, a wide variety of tools were available to students that offer non-linear sequence and catered to the “technosocial life” (Lai, 2002).

It appeared that students were not required to use paint software though they were still creating computer-generated artwork. Ten out of 15 professors stated that paint, video capture, animation, and web design software were optional in their courses or not applied at all. However, 10 out of 15 professors stated that their students created computer-generated art often or frequently, and 10 out of 15 instructors had students combine digital images with other mediums in studio art. I did find in my Review of Literature that though art production is possible through interactive graphic systems such as paint software, teachers did not change the way that they taught because of the software (Freedman, 1991). It is difficult to make an assumption about how these students in the studio courses in my research are creating computer-generated art without the use of paint programs.

With regard to traditional media used in the online studio art courses, the majority of it was purchased by the students. Just like in most classroom studio courses, students

must also purchase their own supplies in the distance learning courses. Various papers and drawing pencils were the two most common items that instructors required, while the other choices came in at around 40% required. Canvases were not high priority in the courses surveyed, nor compasses and oven-bake clay. Ink, glue, traditional clay, wood figure for drawing, and Sharpie markers were items that professors utilized in their courses. Though I did not include it as an option on the survey, one professor simply wrote that he or she let the student provide the medium.

Opinions of Studio Art Courses

The answers to the Milken Exchange on Education Technology survey were particularly interesting. This survey was created to study the instructors' opinions about the effectiveness of the courses they taught. Most of the professors answered "yes" to all of the questions which would imply they feel their studio art cybercourses are successful. Three questions had mixed responses, though. One question asked if there was an agreement on what success with technology looks like. Six professors answered "yes" and six professors answered "no." I think this high number of professors that answered "no" is indicative of the numbers of professors and entire universities that feel studio art should remain a classroom subject.

These mixed opinions were found in the next two questions as well. With eight instructors answering "yes" and four answering "no," the questions were "Is the education system changing sufficiently to systematically meet the needs of learners in a knowledge-based, global society?" and "Is the school-community relationship one of trust and respect, and is this translating into mutually beneficial, sustainable partnerships

in the area of learning technologies?” From the answers to these two questions, one can assume that a percentage of the professors feel their education systems are behind in technological advancements. It can also be deduced that some of the professors feel they do not receive respect from the school or community while teaching studio art courses through distance learning. One of the answers to “What do you find most challenging about online studio art instruction” echoed the lack of respect issue as one professor listed “the support of faculty who are skeptical about teaching art online.”

Despite my research findings that students value a “conversational learning style” and have been accustomed to a “technosocial life” (Lai, 2002), instructors listed the other most frustrating part of teaching online studio art to be interaction on various levels. Some of the professors had trouble with students’ understanding of the course and how online courses work. Students did not know enough about technology to effectively submit assignments without several tries, so this made critiquing work difficult. There were many levels of students reported in the same course, so establishing a relationship with the students would be hard with distance and experience level issues.

Most of the instructors felt that the most successful part of online studio art instruction was the ability to reach a broader population. According to my Review of Literature, countries from Taiwan to the United Kingdom are searching for ways to create universities that are accessible, cost-effective, and have high-quality. With online courses, students can access online resources and training without ever attending campus. Some of the instructors also felt that the courses were better structured and more consistent, at least for the students that had taken online courses before and understood the format. An

overwhelming eight out of nine professors felt that online art instruction held the potential to become more prevalent in the future because of accessibility, cost effectiveness, and technological advancements.

The other most popular reason for success with online studio art was the excitement that they saw in their students when they found they could be successful using a digital platform. According to Freedman (1991), as mentioned in my Review of Literature, students usually enjoy the production process on computers because of the ease involved with making changes or correcting mistakes. It is also possible to keep an existing image and make changes to create another version, which allows students to take more chances working with a computer. The hovering threat of making a detrimental change to a work of art is lessened with computer-generated art.

Effects of International Online Studio Art Courses

In my Review of Literature, it was noted that distance education holds the potential to forge international networks and partnerships, internationalize the curriculum, promote virtual staff and student mobility, and encourage higher education to have a more international outlook. Some universities are already performing this task. Of those surveyed for this research project, all of the professors that answered the final part of the survey felt that an international population of students in online studio art courses could be beneficial. A multicultural approach would help students and teachers with the sharing of different experiences, identities, assumptions, and interpretations. Other research has shown that distance education has enhanced cultural awareness (Lai & Ball, 2004).

The main difficulty mentioned was the obvious language barriers. Most did not foresee a change in studio projects or in assessment, though the language differences would again make it difficult for students to assess colleagues' artwork in terms that the other would understand. However, this could be viewed as beneficial because it would lead to more students understanding second languages. Another possible issue of limited access to technology would affect teaching studio art online, but this is an issue that must be addressed both within countries and internationally. Overall, the ability to communicate globally through art-making and open cultural exchanges would be one of the largest benefits for international courses.

CHAPTER 6: RECOMMENDATIONS

As a student that completed the entire Master of Art in Education in Art Education program through distance learning at East Carolina University, and as an instructor of Art History and Appreciation through cyber courses at Southside Virginia Community College, this research was very important to my field. The purpose of my research was not to suggest that studio art should be taught completely through online courses. The recommendation based on this research is that online courses in studio art be considered valuable and effective solutions to students that are not receiving studio art degrees. In other words, if a student is receiving a Bachelor of Fine Arts or a Master of Fine Arts, a completely online experience would not be a suitable way to complete a degree in studio art. However, if a student needed one or two courses in studio art at the undergraduate or graduate level, an online studio art class would be a plausible option.

It is not the author's intent to suggest that all artwork created in the online studio art classes be computer-generated, though I agree with the 83% of instructors that considered computer-generated art to be an art form itself. On the contrary, my research proved that studio art professors were teaching their courses using traditional media, though sometimes mixed with computer-generated art. Though the media was traditional, the mode of instruction was computer-based and the submission was via computer in 100% of the cases, while 40% of the instructors required mail-in submission as well. I agree with the comment found in my research that humans make art and machines do not (Hicks, 1993). However, I believe that increasing technological advances make it

possible to teach and create art over vast distances and successfully submit, critique, and discuss art in the international arena.

The trend that online courses have the capability to reach such a broad audience is not something to be taken lightly. It was stressed in my Review of Literature as well as in my survey answers that creating a credible education system that is cost-effective and highly accessible is both important and beneficial to many countries and universities. With advancements in technology, we have come closer than ever to creating a system in which the possibilities are limitless for education. Studio art courses must follow suit. Most cybercourses are geared toward vocational focuses with the arts falling by the wayside. Returning to the research that mental habits taught in the visual arts are important to lives and careers, how can a focus on the fine arts be absent from the cyberworld? With the accessibility of digital cameras, high-speed internet, video equipment, and computer software for most countries, students are equipped with all of the tools they need to be successful in an online studio art environment. The professors must be prepared to instruct them in an organized, effective manner via cyber courses. According to my research, this is happening in online studio art courses internationally.

Based on the study, it appears that professors that teach studio art online believe their courses are effective but are met with skepticism from professors that do not teach online courses. One recommendation to remedy this situation would be to educate the instructors that do not teach online courses so they can understand the benefits and success of this type of course. They should be made aware of the potential to successfully teach students that would not normally be able to attend a classroom studio course

because of distance. There is also the potential to expand successfully into an international arena with online studio courses. The variety of art making and backgrounds in art would be broader and more interesting with such a wide range of students in a course.

The only data that did not seem logical were the responses generated when the instructors were asked whether their students created computer-generated art and if the students were required the use paint or video programs. Ten out of 13 professors stated that their students created computer-generated art. Yet only five of those professors required or provided students with paint programs for creating art. I cannot presume to understand how these students were creating computer-generated art projects without the use of paint programs.

Based on the research, it appears that professors do understand the importance of communication and making a connection in an online studio art course. All of those surveyed stated that communication with the instructor was the most important part of a course of this nature, while only one professor did not have students communicate with each other often or constantly. In the current technological era, the only part of culture that is really lost in cyberspace is the sense of smell and touch. Students can see and hear each other to understand gestures and mannerisms. Even without the visual part of communication, students can still communicate a great deal of cultural information about one another through “netspeak” (Lai & Ball, 2004, p. 24). Cyber conversations are rarely cold and computerized as students use regional dialects and slang when they participate in discussion boards which adds culture and certain characteristics to online learning.

There seemed to be a trend regarding the experience level of students being low and the high level of frustration with the online course format for students. This issue is compounded by a 33% belief by professors that the education systems were not meeting the needs of learners in a knowledge-based, global society. This trend is probably not only an issue for online studio art cyber courses. A recommendation to solve the frustration level about experience and meeting the needs of students would be to prepare students for online course format at the high school level. The cost would be lower than a traditional dual-enrollment program as the students would not have to travel. This would allow the students to make an easier transition in any online college course. With more attention paid to the preparation of online courses, colleges would be driven to meet the technological and learning needs of their students in a more timely manner as new technologies emerge.

The number of students in the online courses seemed within reason based on my research. Sixty-two percent of professors had small courses that were comparable to average classroom studio art courses to allow for critiques and student interaction. The other professors with high numbers of students enrolled in their courses did utilize teaching assistants to distribute the workload. This trend of using teaching assistants seems beneficial in that this should create both an increase in awareness of online studio art courses, as well as an increase in knowledge about pedagogical practices for online studio art courses. The teaching assistants that work with these courses will graduate with a broader spectrum of knowledge regarding online studio art courses. The learning curve will be drastically reduced for new instructors which will allow for more productive ideas and practices to surface as they graduate and begin teaching themselves.

International implications seem positive based on the research. Despite the language barriers, cross-cultural and cross-technical connections are important in a world that becomes smaller and smaller each day because of advancements in technology and new ways to communicate. Perhaps these language barriers are not really barriers after all. In a studio art course, a wide range of backgrounds and a vast assortment of creative influences can only be a good addition. The professors surveyed did not foresee any changes in studio projects or assessment. Students could remain in their respective countries while learning a new culture as well as a new language from peer critiques and discussions. With a little effort and equipment, the immediate solution to differences in languages rests in the technology that provides translation in word processing documents. Recorded words can even be translated by new technologies as well.

In conclusion, this research seems to indicate that online studio art courses can be as effective as any other online course. The technology is available and the techniques are effective for undergraduate and graduate students to have success in online studio art courses. As far as the online courses being as effective as classroom studio art courses, that was really never in question. Should an entire Bachelor of Fine Arts or Master of Fine Arts degree be provided online? No, the author does not feel that online courses will ever replace a true studio environment for practicing artists. However, if a student would like to take one or two studio art courses but cannot attend an actual campus for any number of reasons, can an effective substitute result from an online learning environment? Based on the research of literature and my research study of the techniques and trends used in online studio art courses, the answer is yes.

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APPENDIX A: UMCIRB 09-0321



University and Medical Center Institutional Review Board
East Carolina University • Brody School of Medicine
600 Moye Boulevard • Old Health Sciences Library, Room 1L-09 • Greenville, NC 27834
Office 252-744-2914 • Fax 252-744-2284 • www.ecu.edu/irb
Chair and Director of Biomedical IRB: L. Wiley Nifong, MD
Chair and Director of Behavioral and Social Science IRB: Susan L. McCammon, PhD

TO: Kathryn Sheldon, PO Box 266, Phenix, VA, 23959
FROM: UMCIRB *KK*
DATE: April 3, 2009
RE: Human Research Activities Determined to Meet Exempt Criteria
TITLE: "International Trends and Techniques Used to Teach Studio Art Through Distance Learning"

UMCIRB #09-0321

This research study has undergone IRB review on 3.27.09. It is the determination of the IRB Chairperson (or designee) that these activities meet the criteria set forth in the federal regulations for exemption from 45 CFR 46 Subpart A. These human research activities meet the criteria for an exempt status because it is a research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects and any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

The Chairperson (or designee) deemed this **unfunded** study **no more than minimal risk**. This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any changes must be submitted to the UMCIRB for review prior to implementation to allow determination that proposed changes do not impact the activities eligibility for exempt status. Should it found that a proposed change does require more substantive review, you will be notified in writing within five business days.

The following items were reviewed in determination exempt certification:

- Internal Processing Form—Exempt Application
- Letter of Support
- Cover Letter
- Survey

It was furthermore determined that the reviewer does not have a potential for conflict of interest on this study.

The UMCIRB applies 45 CFR 46, Subparts A-D, to all research reviewed by the UMCIRB regardless of the funding source. 21 CFR 50 and 21 CFR 56 are applied to all research studies that fall under the purview of Food and Drug Administration regulations. The UMCIRB follows applicable International Conference on Harmonisation Good Clinical Practice guidelines.