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A Service-Learning Approach to an Arts-based Technology Course to Increase Pre-service Teacher Receptivity to Teaching Technology

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A SERVICE-LEARNING APPROACH TO AN ARTS-BASED TECHNOLOGY COURSE TO INCREASE PRE-SERVICE TEACHER RECEPTIVITY TO TEACHING TECHNOLOGY

A Thesis submitted in partial fulfillment of the requirements for the degree of Master of Art Education at Virginia Commonwealth University.

by

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Abstract

A SERVICE-LEARNING APPROACH TO AN ARTS-BASED TECHNOLOGY COURSE TO INCREASE PRE-SERVICE TEACHER RECEPTIVITY TO TEACHING TECHNOLOGY

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The following question and sub-question guide this thesis project: 1) How does a service-learning approach in an arts-based technology course increase pre-service teacher receptivity to teaching technology? 2.) What are some barriers to teaching technology for pre-service teachers? A positive service-learning experience provides good learning models which have the potential to address the barriers to teaching technology for pre-service teachers by influencing their self-efficacy. Included in this thesis is a unit plan which responds to these research questions.

There are many barriers to teaching technology for teachers including lack of funds, availability and quality of computer hardware and software, teaching models for using computer technology in instruction, time to learn to use computer technology, and teacher attitude (Rogers, 2000). A service-learning approach in an arts-based technology course could increase pre-service teacher receptivity to teaching technology by addressing these needs, the most important of which is providing pre-service teachers with a model for using computer technology in their instruction. Computer hardware and software availability is a problem which the teacher educator can address through writing a grant for funds, computer hardware and software, introducing the pre-service teachers to free and open source software, and negotiating with the partner school's administration and classroom teachers. Equally important is discussing this process with the pre-service teachers so they may learn from that experience.

A positive experience teaching using computer technology has the potential to change pre-service teacher attitude about the ability of a teacher to influence students and their personal ability as a teacher (Wade, 1995; Root & Furco, 2001). Through service-learning, K-12 students and pre-service teachers have the opportunity to teach each other about digital art. It is through these unit plans that a mutual relationship is formed, which enables learning to occur on both ends. Throughout the unit plan, pre-service teachers are given time to reflect on their learning experiences and discuss what they are learning by working with the students. When teaching digital art to pre-service teachers, while it is important to give goals, guidelines and some basic instruction to lay the ground work for future discoveries, pre-service teachers and students alike need the

opportunity to find the solutions to their own technical and artistic problems.

The curricular ideas and unit plans contained within this thesis may serve as idea-generators for teacher educators interested in enriching their computer technology curriculum for pre-service teachers by incorporating service-learning into their practice. The big ideas were chosen to emphasize the idea of a learning community. Students and pre-service teachers develop a relationship over the course of teaching in which both learn from each other through the pre-service teachers' lessons and how the lessons are interpreted by the students. In effect, these unit plans are a beginning for future projects which integrate service-learning and the digital arts.

CHAPTER 1

Barriers to Teaching Digital Art Lessons for Pre-Service Teachers

This study is based upon my experience teaching an undergraduate course for pre-service art teachers titled Computer Technology in Art Education in the Department of Art Education at Virginia Commonwealth University in Richmond, Virginia. In this 3 credit-hour class, hereafter called ARTE 250, students are introduced to the computer technology used in fine arts and graphics production, visual arts research, and art classroom administration. Computer technology is any technology available on the computer. This course is designed to help students develop the ability to create and teach digital art lessons. Digital art is art created using computer technology of any kind, especially those created using computer graphics software. The curriculum for this course has historically included in-class instruction on a variety of computer graphics software: Adobe® Photoshop®, Adobe® Illustrator®, Adobe® InDesign®, Adobe® Dreamweaver®, iMovie™, and Microsoft Office™. The problems I encountered while teaching ARTE 250 led me to research service-learning pedagogy as a potential solution.

What is service-learning?

Service-learning is a mutually beneficial partnership wherein students from an educational institution engage in an academic curricula by serving a community. Service-learning pedagogy has been gaining academic recognition as a form of experiential,

liberatory learning that connects service to the community and school curricula (Cho, 2006a; Cho, 2006b; Taylor, 2004). Dewey's (1938) theories of experiential learning drive much of the service-learning theory (Taylor, Carpenter, Ballengee-Morris, & Sessions, 2006). Dewey believed that genuine education was a social process involving the teacher, the students and their community (as cited in Mooney, 2000, p. 4). "[T]rue education comes through the stimulation of the child's powers by the demands of the social situations in which he finds himself" (as cited in Mooney, 2000, p. 5). In service-learning, students' academic knowledge is put to use in the community, requiring social involvement. "Dewey set out a six-step process of inquiry which involved: 1) encountering a problem, 2) formulating a problem or question to be resolved, 3) gathering information which suggests solutions, 4) making hypotheses, 5) testing hypotheses, and 6) making warranted assertions" (as cited in Cone and Harris, 1990, p.32). Similarly, service-learning pedagogy can be divided into 6 stages: preparation/planning/design, action, reflection, demonstration, recognition/celebration (Cho, Follman, and Doromal, 2006). The Cone and Harris (1990) lens model for service-learning includes the following elements: the learners, the definition of the task (cognitively and pragmatically), experiences, critical reflection (academic, informal, oral, and written), mediated learning, and then learners with newly integrated concepts. Service-learning can be a powerful form of experiential learning.

An Example of Arts-Based Service-Learning in Technology

Hutzel (2007) used service-learning pedagogy in a computer technology class for pre-service art educators. Hutzel's university class partnered with local youths involved in an after-school program to create collages in Adobe® Photoshop®. The pre-service art teachers met the curricular goal of learning the software program sufficiently in addition to gaining confidence as teachers. One pre-service teacher admitted feeling additional pressure to be knowledgeable about the software. "I felt that I learned Photoshop much better because I felt like LaShawn was in some way depending on me to know my stuff," (Hutzel, 2007, p. 38.) The pre-service teachers transitioned from a teacher-as-expert disposition to teacher-as-partner disposition. ". . . Most of the students immediately realized the contributions the youths made to their learning and appreciated the youths' knowledge and fearlessness," (p. 35). One undergraduate participant stated in an on-line discussion that her 9-year-old youth partner was teaching her and another undergraduate. She realized that "He is going to be more of a benefit to Naomi and I, than we will be to him, on the computer" (p. 35.) Several students expressed an increased comfort in working on the computer because of the service-learning approach. Service-learning experiences have the potential to help pre-service teachers become more confident both as teachers and as computer technology users, thus increasing their receptivity to teaching digital art lessons in their own future teaching careers.

This thesis project addresses pre-service art educators' resistance to teaching digital art lessons. Digital art lessons are an important component of any art curriculum but are often overlooked. Implementing a service-learning pedagogy into an arts-based

technology course for pre-service teachers would help them gain teaching experience using computer technology. This kind of experience could mean gains in confidence teaching as a learning partner as well as teaching using computer technology.

Background

Proficiency in computer technology is becoming increasingly important for businesses and therefore, for students and educators of all kinds. In the United States, having computer-related skills translates into high incomes for high school graduates (Sandholtz, Ringstaff, & Dwyer, 1997). Art educators can better prepare their students for life in the digital age by incorporating computer technology skills into their lessons. Many of McLuhan's (1964) predictions of an information-based society have come true.

> Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned. Rapidly, we approach the final phase of the extensions of man—the technological simulation of consciousness, when the creative process of knowing will be collectively and corporately extended to the whole of human society, much as we have already extended our senses and our nerves by the various media (p.3).

Computer technology holds an important place in economically advanced civilizations of today. Virginia's public schools place a high value on computer-related skills as evidenced through the Virginia Standards of Learning[1], which devotes an entire category to computer technology.

In today's digital world, one cannot work as a graphic designer, interior designer, fashion designer, or any number of other art-related professions without extensive

1 Virginia Standards of Learning (SOLs) are learning requirements tested by mandate in each grade in

computer knowledge. Additionally, two-dimensional, three-dimensional, and moving digital art have become very popular. Nam June Paik, Bruce Nauman, Jenny Holzer, and Bill Viola are among the many artists who have been a part of the recent wave of electronic art (Art Scholastic, April/May 2002). Even traditional media artists benefit from the use of the Internet for visual research, using image search engines like Google to find inspiration.

Researchers agree upon several strategies to help pre-service art teachers develop the skills they will need to teach digital art lessons. It is imperative to engender in pre-service art teachers the ability to learn new software as independently as possible (Mayo, 2007; Sandholtz, Ringstaff, & Dwyer, 1997). Also, pre-service art teachers should integrate their digital art lessons into the larger framework of their art curricula (Taylor et al., 2006; Walker, 2001). Finally, pre-service art teachers can learn to teach digital art to K-12 students with confidence when given the opportunity to practice through service-learning (Hutzel, 2007).

The pre-service art teachers in ARTE 250 expressed fears that they would not have access to the expensive computer graphics programs available to the university. I addressed some of these conserns by discussing their options, such as the use of open source software. Open source software is publicly, and collaboratively developed and available for free via the Internet. Similar tools exist on-line that do not require downloading and installing software. Computer technology accessibility is a problem in education, but one that a dedicated teacher can find ways to resolve. Grants and other

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Virginia public schools.

public monies are available, and most counties in central Virginia have at least one staff member allocated to computer technology problem-shooting.

Even after an intensive semester, many pre-service teachers complained that they are not comfortable using or teaching computer technology. Then I discovered that their apprehension about teaching using computer technology was amplified by their general fears about teaching. Many of the pre-service art teachers had no experience teaching peers or K-12 students. Many expressed the fear that their future students will be more confident and knowledgeable about using computer technology than they are. How could they teach a digital art lesson if the students knew more about the computers than they did?

Statement of Problem

Pre-service teachers cite many of the same barriers to teaching computer technology that tenured teachers do: lack of funds, availability and quality of computer hardware and software, models for using computer technology in instruction, and time to learn to use computer technology. The most common barrier to computer technology adoption in the classroom is actually the teachers' attitudes. (Rogers, 2000). “Internal barriers may be summarized as “teacher attitude” or “perceptions” about a technology, in addition to a person’s actual competency level with any technology (Rogers, 2000, p. 459).”

Service-learning may increase pre-service receptivity to teaching computer technology. Pre-service teachers involved in computer graphic arts-based service-

learning program reported increased comfort teaching and using computer technology (Hutzel, 2007).

Pre-service teachers who had been taught by educators teaching as experts, may be uncomfortable with the idea of students knowing more about a subject than they do. However, pre-service teachers involved in computer graphic arts-based service-learning programs wherein they partner with their students may become more comfortable with teaching as a learning partner.

Teachers as Experts Pedagogy

This course has historically been taught via tutorial-driven class instruction, where the teacher teaches as an expert in computer technology. Typically the teacher stands at the front of the classroom and gives a demonstration of the uses and functions of a software program while the students imitate the demonstration and follow along with a typed handout at their own computer. After the tutorial, the students spend a couple weeks or about five 2-hour class periods creating an artwork using the software program.

Each time I taught ARTE 250, I sought new ways to make digital art more accessible for the pre-service teachers. In 2007, I saw Liu's NAEA presentation, "A case study of teaching digital art in art teacher education in Taiwan." She found that, like ARTE 250, most computer technology courses for art educators are tutorial-driven. Yet Liu (2007) found that most of the research on teaching computer technology states that tutorial-driven instruction, a teacher-as-expert pedagogy, is inefficient. My classroom experience led me to believe that computer technology courses taught from an expert

position do not empower the pre-service art teachers to continue to learn about computer technology after the termination of the course. The best resource to aid art teachers in learning about computer technology may be the students themselves. Black (2005) suggests that educators wishing to involve their students in using "new, exciting, digital technologies... may want to rethink the teacher-student dynamic to facilitate flexible, co-learning relationships between themselves and their students" (p.124).

Research Questions

This thesis project explores the following main question:

1. How does a service-learning approach in an arts-based technology course increase pre-service teacher receptivity to teaching technology?

This thesis project also explores the following subquestion:

2. What are some barriers to teaching technology for pre-service teachers?

This thesis project will address these questions through a review of the literature (in chapter two) on computer technology for teachers and more specifically for art teachers, discuss the barriers to computer technology adoption, and explore service-learning as a potential solution. In chapter 3, I will discuss how a service-learning approach to a curriculum for an arts-based technology course for pre-service teachers could be structured based on learning objectives and the research available about service-learning, computer technology, and pre-service art teachers. In chapter 4, I will theorize how that

curriculum might be implemented with hypothetical classes of pre-service teachers and middle school students.

Limits to the Problem

This curriculum certainly could provide more insights had it been implemented. As it stands, this curriculum is meant to be adapted to the interests of the pre-service teachers as much as possible. With the rate of computer technology advancement, I recognize that by the time this thesis is completed, the software referred to in these pages may be obsolete. This curriculum should serve as a guide to art teacher educators who wish to offer their pre-service art teachers classroom experience teaching digital art lessons.

Purpose of the Study

I am doing this project because it is vital that pre-service art teachers feel somewhat comfortable and capable teaching digital art lessons. Pre-service art educators should have the opportunity to learn to teach using computer technology before they graduate. I believe service-learning can provide the experience that pre-service teachers need to become competent and comfortable teaching digital art lessons.

There has been some research done on the effects of service-learning on pre-service teachers, and a little on arts-based service-learning for pre-service teachers. Additionally, much of the research that has been done on these two topics provides only anecdotes, suggestions, and strategies for creating new service-learning projects,

programs and curricula, but few describe the actual arts-based curriculum. From my research so far, I have found very few studies on the effects of digital arts-based service-learning for pre-service teachers (Hutzel, 2007). Considering how important computer proficiency and experiential learning through service-learning are to art education, this research gap deserves attention.

Additionally, pre-service art teacher educators may find it easier to begin to construct a curriculum that is tailored to their needs if they have access to curricula incorporating service-learning into an arts-based technology course for pre-service art teachers. A curriculum for Computer Technology in Art Education that incorporates service-learning could provide the necessary experiential learning to empower pre-service teachers to better utilize technology in their own classroom and teach digital art lessons.

This thesis project will attempt to answer the question of whether a service-learning project can fit into a semester-long computer technology course for pre-service art teachers. I theorize that the curriculum included in the appendix, when implemented by a skilled teacher educator, can successfully introduce a variety of computer technology used in digital art and art classroom administration as well as give pre-service art teachers experience teaching digital art lessons.

CHAPTER 2

Computer Technology, Service-Learning and Art Education

This thesis centers on the question, ‘How does a service-learning approach in an arts-based technology course increase pre-service teacher receptivity to teaching technology?' I provide a literature review, rationale, and a hypothetical ethnography to support a new potential curriculum for a pre-service art teacher course in computer technology.

In this chapter, I provide review of the literature which helped me shape the changes to the ARTE 250 curriculum. First, I give some background on current curriculum-writing philosophies. Then I will review literature about computer technology in art education and about service-learning. Lastly, I will discuss a study wherein a teacher educator documents a service-learning partnership involving a digital art lesson. These pre-service teachers and local youths created a collage using Adobe® Photoshop®.

Art Education and Curriculum Development Approach

Sydney Walker's (2001) strategy gained popularity; Walker's art units are based on the big ideas, broad, important human issues, or overarching understandings inherent in artists' work. Inherent in the big ideas pedagogy is the concept of interdisciplinarity. For example, in an interdisciplinary unit based on the big idea of “environment,” an art class might partner with a science class to create an art garden (Taylor et al., 2006). The

big idea unit-building strategy relates to the essential understandings theories of Wiggins and McTighe (2005), who suggested “backwards design” as starting with the goals and ideas first and then working towards the end project assessment.

When teaching an art lesson that uses computer technology, it should be taught using curriculum-writing methods similar to the studio art lessons. Art lessons using computer technology should be taught as part of a larger unit about a meaningful, relevant big idea. A curriculum based upon "big ideas" asks thought provoking "essential questions" that lead to more meaningful art-making (Walker, 2001; Wiggins & McTighe, 2005). After the larger unit of instruction has been outlined, individual lessons can be constructed that meet national, state, and local standards for learning. Lessons taught in units based upon big ideas are more authentic because real-world artists explore their own big ideas through essential questions and create problems to resolve in their artworks that are relevant to their lives.

By prioritizing the learning goals of each lesson and allowing students to create their own interpretation of artworks instead of being bound to recreating the style of artworks, the lessons are already adapted for students of mixed ability. "Cramming a single class period with as many big ideas, artists, media, techniques, or art-making problems is not the goal; rather the goal is to teach students…the process of exploring big ideas" (Walker, 2001, p. 112).

The effectiveness of “big idea”-based curricular strategies is fairly well-supported in art education. Buffington (2007) involved her students in a service-learning project focused on teaching using big ideas, which gave them first-hand experience teaching

using this strategy. Even Papert (2000), an inventor of the Logo programming language, discussed the effectiveness of pedagogy based on the connections and "bigness" of ideas. He stated that although it is harder to think about ideas than to bring a new technology into the classroom, it is that kind of hard work that makes teaching and learning interesting and meaningful. "Big ideas" become the keystone of curricular development, making learning facts and skills methods toward expressing or understanding a universal concept.

Computer Technology in Art Education

Competency in computer technology has rapidly become a priority in education. Students today need to learn how to use computer technology in their daily lives. Computer knowledge and skill can lead to jobs for students, but more importantly for preparing students for their future careers by helping them become comfortable and familiar with technology and understand the ways in which it may be useful (Sandholtz, Ringstaff, & Dwyer, 1997, p. 175). With more and more schools having computer labs, art educators have the opportunity to teach digital art lessons as well as introduce media theory into the art classroom. As computer technology become more accessible, there is a need for art educators to develop relevant teaching strategies.

The Computer As An Artistic Tool

The computer should be used as an artistic tool; therefore, any course where the objective is to learn to use the computer to create digital art should focus on the artistic

product and creation process more than teaching students how to use the computer itself (Mayo, 2007; Sandholtz, Ringstaff, & Dwyer, 1997). Researchers have found that learning is most successful in classrooms where learning to use the computer was not viewed as a separate subject but rather integrated into the curriculum where it fit into meaningful assignments and emphasized using software applications as tools (Sandholtz, Ringstaff, & Dwyer, 1997). For instance, a drawing class would not focus on learning to use the pencil. Rather, one might teach a few rendering effects, texture, and contrast strategies, but it might be more effective for students to focus on drawing the still life or modeling those new techniques.

Digital Art: the Making Process

The original curriculum was faithful to a traditional artistic learning process which includes planning, research, learning through instruction or working with the materials, creation, and critique. I am including some additional research that helped me to further integrate computer technology into the process. Researchers agree on some other aspects of good teaching practice when it comes to digital art: emphasize pre-production (Mayo, 2007), responsible Internet visual research (Mayo, 2007; Buffington, 2007), and interface flexibility (Mayo, 2007). These are some elements essential to include in teaching strategies for anyone teaching digital art, especially for students unfamiliar with computer technology. In this section, I included some of the ways these elements influenced the first lesson in the new curriculum, the Photoshop® collage.

Pre-production includes all the planning, sketching, designing, and research before implementation of a project. Sometimes, new computer users are lost in the medium and forget about the importance of the creative process, although planning is vital for the successful creation of any work of digital art. For film and animation, students should create a storyboard, materials list, and production outline (Mayo, 2007; Black, 2005). Pre-production might also include brainstorming, internet research, and sketching (Mayo, 2007). In the Photoshop® cultural collage lesson in ARTE250, pre-production included discussing collage as an art form, brainstorming about the meaning of cultural identity, searching for and collecting images from the internet related to their heritage, interviewing family members about their history, and collecting old family photos. The pre-service teachers were also required to write a short research paper about their identity and/or family, like a short story to support their collage. In the new curriculum, instead of writing a research paper, the students would include similar information in a multi-linear mind-map created using the software Tinderbox[2] and a poem.

The Internet is an excellent resource for visual research regardless of whether the end product is implemented using traditional or digital processes. As with any collage or recycling of images, "it is important that images are transformed significantly enough to be distinct from the original research source," (Mayo, 2007, p. 51). Discussing the responsible use of the computer and intellectual property laws early in the process is

2 Tinderbox is a software program that allows the user to create HTML-based mindmaps. Each may contain many layers, notes, and pictures, all of which may be connected through visual Hyperlinks within the program. See figures 1 and 2 on pages 116 and 117 for images of tinderbox mind maps.

important (Mayo, 2007). In both versions of the Photoshop® collage lesson, the pre-service teachers search for and download images from the Internet for use in their collages. In the newer lesson, the students are also constantly encouraged to use the Internet as a resource for software tutorials. There are many online tutorials, podcasts, and YouTube™ videos to help students learn individual software programs, specific effects, and digital processes.

Interface flexibility is undoubtedly one of the most important issues for the continued use of digital art programs by teachers. New software and operating system interfaces are continually being developed. Instructing pre-service art teachers on the finer points of a particular software program is not as important as focusing on skills and functions that are repeated across many software programs, (Mayo, 2007) because software programs are often obsolete before the pre-service teachers graduate. Comparing and contrasting the functions available in various programs might emphasize the repeat functions in each software package. For instance, among the Adobe® Creative Suite software programs, most of the editing commands and short-cuts work in similar ways, such as Control/Command C for cutting and Control/Command V for pasting. Repurposing skills and helping students to understand how they can learn software on their own should be a priority. Showing pre-service art teachers how to use the help features to solve their technical problems could foster some self-reliance in students (Black, 2005; Mayo, 2007). In the introduction to new software, I have learned to ask the pre-service art teachers to identify functional similarities between programs and point out similar short-cut commands like Control/Command C.

Artistic Play and Exploring New Software Programs

In teaching ARTE 250, I sometimes found that the pre-service teachers were too focused on trying to complete the project to really play and experiment. Often they used only the functions we covered in the tutorial. For this reason, I included a lesson on using TuxPaint in the new curriculum. TuxPaint is an open source children's drawing software program and is extremely easy for adults to use and master within a short period of time. I believe it is helpful for new computer users to experience playfulness with digital art-making early in the ARTE 250.

New software users should be encouraged to play, explore, and experiment with new software functions as this can help them better understand the capabilities of the program. Experimentation or play is a vital component to learning new media as well as the creative process. Mayo (2007) agreed that digital arts classes should integrate arts-technology experimentation and foster self-directed inquiry. Computers are used to their fullest potential as artistic tools in the classroom when students are free to explore software at their own pace (Sandholtz, Ringstaff, & Dwyer, 1997).

Walker described play as "an important conceptual strategy that helps artists find new perspectives, produce inventiveness, avoid the conventional, and provoke insightful questions," (2007, unpublished, p. 1). Another important aspect of play is that when it becomes predictable or boring, we will change the structure of the play to stay interested in the activity. Gude (2007) described play as being a free, creative, and personal exploration with media while Hans (1981) described play as an activity in which one can

forget the self and become absorbed by the activity. Play begins with a question and is motivated by a wish for further understanding (Hans, 1981.) Play, a process that experientially confirms or denies assumptions about the world, requires a willingness to risk losing face (Hans, 1981.) According to this last definition, playing is a kind of experiential learning. Engaging pre-service art teachers in playful activities can enable them to explore new digital art software programs with a willingness to risk failure.

Teacher as Expert

The biggest struggle teachers using computer technology face is usually the transition from their traditional teaching strategies and adjusting to becoming a facilitator (Sandholtz, Ringstaff, & Dwyer, 1997). Hannafin and Savenye (1993) found that many teachers get so frustrated in learning to use the computer that they give up before adapting the technology for classroom use.

Hanafin and Savenye (1993) found that some teachers viewed the computer as a threat to their position of power within the classroom. Traditional views of the teacher include the teacher as the person who keeps the class "under control" and dispenses information to students who passively acquire that knowledge in discrete bits. Hannafin and Sevenye (1993) hypothesized that educators willing to teach using computer technology should not only be somewhat technology proficient but also accept their role as teacher-facilitator. They also found that the computer's use in the classroom alone does not change the teacher's role but rather as the responsibility for learning shifts from the teacher to the student. The authors concluded that teacher resistance to computer use for

student-centered activities might instead of being resistance to technology be resistance to losing the teacher role as knowledgeable expert.

Service-Learning

Cho (2006) defined service-learning as the integration of community service into an academic curriculum, generally including five stages: preparation, action, reflection, demonstration, and recognition. Taylor, Carpenter, Ballengee-Morris, and Sessions (2006) defined service-learning as a collaborative form of experiential learning to help bring about social justice. "Service-learning is a growing pedagogy that integrates community service into an organized curriculum that includes regular opportunities for personal reflection (Anderson, 1998, p. 6). Anderson, Swick, and Yff (2001) define service-learning as a form of teaching and learning involving the intentional "linking of service activities with the academic curriculum to address real community needs while students learn through active engagement and reflection" (p. xi). For the purpose of this study, I draw upon all these definitions in the following: service-learning is a form of teaching and experiential learning that integrates the academic curriculum with service to the community.

Service-Learning in Teacher Education Rationales

Many rationales for integrating service-learning into teacher education exist. Eyler & Giles (1999) found that student participants in their study reported personal and interpersonal development, increased self-knowledge and personal efficacy. Verducci and

Pope (2001) found that service-learning can increase students' academic engagement, enhance moral and civil values as well as critical thinking abilities and academic content knowledge. The researchers include many other rationales.

> Service-learning is an effective pedagogy for teaching and learning.
> Service-learning is a means to foster social understanding, civic participation, and/or social transformation.
> Service-learning provides civic, social, and personal benefits for participants.
> Service-learning prepares students for the workforce (work-based learning).
> Service-learning aligns with standards.
> (Verducci & Pope, 2001, p. 3-4).

My personal rationale for including service-learning in this curriculum focuses on my belief that is a valid form of experiential learning. I had a wonderful service-learning experience in my secondary practicum at VCU. I witnessed social transformations small and large at Chandler Middle School in Richmond, VA. Additionally, I gained confidence in my own ability to teach.

Self-Efficacy Gains in Service-Learning

Pre-service teachers fearful of teaching using computer technology would benefit from a pedagogy which improves self-efficacy. “Teacher efficacy refers to a teacher's belief in his or her ability to positively influence students' achievement,” (Root & Furco, 2001, p. 92). Ashton & Webb (1986) revealed that a teacher's beliefs about teachers in general to influence students are independent of the beliefs about his or her personal ability to influence students. Several studies have found a correlation between teacher

efficacy and vital educational outcomes, including student achievement and effective teaching behaviors (Root & Furco, 2001, p. 92).

Wade (1995) found that students in an elementary methods course including a service project and a service-learning portion experienced gains in self-efficacy. Root and Furco (2001) stated that another positive outcome of service-learning is the development of a pro-social self-schema. Self-schema are extensive structures of self-knowledge which include present and potential representations as well as wanted and unwanted representations of the self (Markus & Nurius, 1986, 1987).

Service-Learning Principles

Anderson, Swick, and Yff (2001) listed several principles integral to service-learning programs: high-quality service towards a recognized community need, integrated learning connecting service experiences to academic learning through reflection. Service-learning should promote a sense of civic responsibility and encourage students to engage in planning, implementing and evaluating the service-learning program. To ensure the benefit to all parties involved, collaboration and continued evaluation of progress toward learning and service goals is vital.

Several elements are essential to service-learning (Anderson, 1998; Taylor et al., 2006; Cho, 2006). The service must meet a specific, community-defined need. The service project should be integrated thoughtfully into the academic curriculum so that action directly relates to what the students are learning about in class. Researchers (Anderson, 1998; Taylor et al., 2006; Cho, 2006a; Klein-Young, 2006; Hutzel, 2006;

Cone and Harris, 1990) point to the necessity of personal reflection in service-learning pedagogy. Taylor, Carpenter, Ballengee-Morris, and Sessions (2006) reiterated the essential qualities of service-learning: action addressing a communally addressed need, integrated with curricular goals, and involving critical reflection.

Central to the concept of service-learning are the ideals of enduring responsible citizenship and social change for justice (Taylor et al., 2006). "When service-learning projects are meaningful across disciplinary boundaries and provide students with opportunities to reflect on the difference their participation truly makes in the lives of others, they are more likely to continue living with a sense of civic responsibility," (Taylor et al., 2006, p. 97).

Another concept central to service-learning is that of reciprocity (Taylor et al., 2006). Often described as a symbiotic relationship between learner and community, all partnership stakeholders should benefit from the project. In education, the learners gain from the service provided by the teachers; the teachers gain from the experience of teaching as well as their students' experiences.

Service-Learning Theory

Cone and Harris (1990) sought to bridge the gap between theory and practice with their six-stage model of service-learning that addresses the philosophical, psychological, and social phenomena involved. Cone and Harris disposed of the concept of *tabula rasa* education by emphasizing the preconceived notions of the learners which filter experience and thus shape the learning process. "A model [of service-learning] which

simply asks students to go into community settings and learn through experience is potentially damaging... Simply experiencing new worlds doesn't necessarily increase understanding and may even serve to confirm stereotyped perspectives," (Cone and Harris, 1990, p.32). The solid guidance of an educator and clearly defined goals are key components in order for learners to experience a shift in perspective.

Cone and Harris provide specific analytical tools with their 6 stage model to help educators carefully guide the work of their students engaged in service-learning. Service-learning pedagogy can be divided into 6 stages: preparation, action, reflection, demonstration, recognition, and exhibition (Cone & Harris, 1990). Cho (2006) emphasized the importance of the preparation and reflection stages. The preparation stage should give the learners and the community partners an understanding of what they will be doing and why. This stage is intended to encourage students to take ownership of the project by helping to prepare for it. After the action, the implementation of the project, reflection, as the component distinguishing service-learning from community service, is important because it helps students to link their experiences back to academic theory and express their thoughts about their experiences. Demonstration is another opportunity for students to share what they have learned. The recognition element brings together project stakeholders for reflection and/or demonstration. For art educators, public exhibition and a "gallery opening" of the project can be a great way to recognize the efforts of both parties. Including some element of each stage in service-learning pedagogy is important to the success of the program as well as essential to ensure that the learning experience is connected to academic knowledge.

Changing Roles: From Teacher-Experts to Teacher-Partners

Many researchers have found that when working with computer technology or service-learning, often the best teaching role is more of a guide-on-the side than an expert teacher role.

Although she didn't work with computer technology, Klein-Young (2006) documented her own transition from her role as teacher to facilitator throughout the course of implementing a service-learning program with her students in an alternative high school. In her transformation, she began to see that she could learn from her students as well as guide them. She believed that the service-learning program allowed her to view her students as innovators as opposed to trouble-makers. She believed that their reflection practices throughout the experience encouraged the students to learn from and have respect for each other.

Although she did not work with service-learning, Black (2005), a multi-media high school teacher, relinquished some level of control with the self-image of her as an expert, and, consequently, her students were able to learn with her and her students. Sandholtz, Ringstaff, and Dwyer (1997) and Hannafin and Savenye (1993) stated that the most difficult part of becoming a teacher of computer technology is relinquishing the teacher-as-expert status and adopting a new set of beliefs about teaching and being a teacher.

Both Black (2005) and Klein-Young (2006) found that the facilitator or guiding role was a better fit for their teaching practice when computer technology or service-

learning is involved, respectively. I hypothesize that a facilitative role would work well for a teacher educator when both computer technology and service-learning is involved in the same course.

Digital Art and Service-Learning: An Example Art Teacher Education Program

Hutzel (2007) taught a computer graphics course for pre-service art educators incorporating a service-learning partnership with neighborhood youths. The pre-service art educators and community youth partners learned Adobe® Photoshop® together and created collages in teams. The pre-service teachers noted in their observations that their students were fearless, often taking the lead during the tutorials, and more comfortable making mistakes in their work. Hutzel (2007) stated that computer technology can help students with varying abilities and needs to reinforce or teach curricular goals. She reiterated that service-learning should not be taught as a separate entity. Her service-learning project demonstrated how "service-learning methodologies have the potential to enhance skills-building classes such as computer graphics as the skills are applied to real situations," (Hutzel, 2007, p. 37). Hutzel's (2007) findings support the idea that service-learning pedagogy can be successfully applied to computer technology courses for art pre-service art educators.

Conclusion

Digital art should be taught using curricular structure similar to teaching other forms of art. Thus a curriculum for a computer technology course for pre-service art

teachers like ARTE 250 should include a curricula based on “big ideas”. It should address artistic process elements unique to computer technology, such as using the Internet for visual research or emphasizing similarities between software programs. Teacher educators should guide pre-service teachers’ self-education via Internet tutorials and the help function so that they can continue to learn about computer technology.

A service-learning program incorporated into a computer technology course for pre-service art educators could be a way to offer them valuable teaching experience. Service-learning pedagogy can be divided into 6 areas: preparation, action, reflection, demonstration, recognition, and exhibition (Cone & Harris, 1990). Such a program has the potential to influence the pre-service teachers’ self-efficacy. Pre-service teachers who believe in their ability to teach computer technology skills are more likely to be successful at doing so.

The following chapter provides the outline and rationale for the unit plans for a computer technology course for pre-service art educators which includes service-learning. The unit plans are based on Wiggins and McTighe's (2005) curricular ideas which involve planning key concepts, essential questions, and learning goals before choosing the artist, media, or project.

CHAPTER 3

A Unit Plan and Rationale

In this chapter, I will provide a curriculum outline for a computer technology course for pre-service art educators which includes service-learning. Then, I will introduce each new "big idea" unit with supporting rationale, key concepts, and essential questions.

Firstly, the overarching big idea contained in the curriculum is "Community." Driving much of the theories behind service-learning pedagogy is the idea of active citizenship, and thusly, community involvement. Generally defined as a group based upon shared interest, place, and interaction, communities create the basis of human social structures. As part of the focus of this course and this thesis, the concept of service-learning deserves as much discussion and planning as possible before the pre-service teachers even find a community partner for the project. In this instance, the service-learning project would involve community building between the pre-service art teachers and a nearby middle school's students.

Community building is important, especially in service-learning projects. It is important to the success of the partnership that the pre-service teachers discuss and reflect upon ideas of race, poverty, and privilege (Taylor, 2002). In the following curricular units, the pre-service teachers will explore their own personal identity through making art and writing about their experiences in their own communities. Then they will

share the art and writing with their peers before meeting their service-learning partners. "Art education service-learners are constantly challenged to reflect on the ways that their life experiences affect their view of the children and the program" (Taylor, 2002, p. 133). Throughout the action portion of the service-learning experience, the pre-service teachers will be asked to reflect upon their life experiences and examine how those experiences affect their view.

Day	Topic	Key Concepts
1	Classroom Community	A community can be defined as a group of people who share common interests and have some degree of interactivity; for this course, the most important communities are the shareholders in this service-learning partnership: the students in this university class, the students and professors in the art education department, art school, and university, and the students, teachers, parents, and principal of the partner school.
2	Identity and Community	An artist teacher belongs to various communities which are part of his or her layered, individual identity.
3	Identity and Community	Artists can virtually and visually map their community involvements in multiple ways.
4	Identity and Community	Art teachers may work for social justice and strengthen their communities by developing service-learning partnerships with their schools, universities, and neighborhood constituents.
5	Identity and Community	Teachers and their curricula are influenced by the communities they choose to involve themselves.
6	Community and Service-learning	Teachers best function as learning guides rather than knowledge experts.
7	Community: Stories of Ritual and Tradition	Artists tell stories about the rituals and traditions of their community in various forms: comics, graphic novels, picture books, and traditional art forms.
8	Community: Stories of Ritual and Tradition	Narrative artists use various visual devices and techniques to communicate their stories.
9	Community: Stories of Ritual and Tradition	Narrative artists use various formats to communicate their stories.
10	Community: Stories of Ritual and Tradition	The various formats narrative artists use to communicate their stories have different connotations and status associated with them.
11	Community: Stories of Ritual and Tradition	The narrative techniques, devices, and formats artists use to communicate their stories have varying degrees of readability.
12-14	Community: Stories of Ritual and Tradition	The narrative formats artists use to communicate their stories have varying degrees of readability.

15	Community and Service-learning	Teachers should be aware of and able to implement current teaching and curricular strategies.
16-17	Community and Service-learning	Teachers are aware of their personal view point, reflect upon it, and examine other perspectives.
18-19	Community and Service-learning	Good teachers are attentive to their students' needs and preferences and adapt to them.
20-24	Community and Service-learning	Teachers best function as learning guides rather than knowledge experts; being an expert in a subject matter is not necessarily required to teach it well.
25	**Community and Service-learning**	There are many excellent learning strategies appropriate to use when teaching or learning about computer technology: experimentation, demonstration, instruction, written instruction, using the help function, and watching applicable video tutorials online.
26-27	**Community and Service-learning**	Exhibiting student work is an important form of closure for a large project meant to bring the school community together to recognize the students for their work.
28-29	Community and Service-learning	Being a teaching expert in a subject as time-sensitive as computer technology includes the ability to recognize the value in the students' participation in the teaching and learning process.

Unit Plan: Classroom Community

An Introduction to Service Learning and Computer Technology

Related Topic: Classroom Community

Rationale

For this course, the most important communities are the shareholders in this service-learning partnership: the students in this university class, the students and professors in the art education department, art school, and university, and the students, teachers, parents, and principal of the partner school. The first community these students will encounter in the course consists of the instructor and the students themselves. Talking about classroom community and how we relate to one another in the classroom is not only important for starting the semester on a positive and welcoming note, but also as a good starting place to discuss the big idea at the core of the semester's unit.

Key Concept

A community can be defined as a group of people who share common interests, share locale, and/or have some degree of interactivity.

Essential Question

What is a community?

Day 1

Objectives:

Community:

Students will meet their classmates and collaborate to build a solid classroom community.

Service Learning:

Students will learn about service learning partnerships, theory, and curricula.

Art Criticism:

Students will analyze their own works and peer works.

Art Production:

Students will learn how to draw using a mouse.

Computer Technology Skills:

Students will learn about some of the uses of computer technology in art education.

Students will learn about open source and free software programs.

Students will learn to use TuxPaint to draw.

Itinerary:

(15 minutes) Introduction to instructor and course goals. Define service-learning: the integration of community service into academic curricula for civil participation and experiential learning.

(10 minutes) Introductions to classmates.

(20 minutes) Explain and present about how computer technology is being used in art education.

(15 minutes) TuxPaint exercise.
Spend a lot of time playing, learning the various functions, and listening to the funny sound effects.

(5 minutes) Break.

(30 minutes) Explain and present about how service-learning is being used in art education. Discuss the big idea of community. Differentiate "big idea" from "theme" in curricula. Discuss how service-learning is integrated into this computer technology course curriculum.

(10 minutes) Plan and brainstorm about possible service-learning projects to do with a local middle school for later in the semester.

(15 minutes) TuxPaint exercise.
Create an artwork which could grow into a lesson for elementary school children.

(10 minutes) Discuss how the artwork could become a lesson plan. Discuss unit plans based on big ideas. Discuss the big idea of community. What research is necessary to write a unit plan based on the big idea of community? What central artwork would be good to use? How can service-learning be incorporated in the lessons?

(10 minutes) Explain Photoshop® assignment. Homework: choose a community and bring in photos.

Unit Part 1: Identity and Community

Rationale

Teachers need to be aware of their influences, biases, and personal preferences and how they affect their curricular choices. "Teachers, as do all people, exemplify and actualize the beliefs and values that emerge from their active participation with the world. Our individual identities are constructed through our interaction within the overlapping and intersecting communities to which we belong" (Congdon, Stewart, & White, 2002, p. 108). Exploring, mapping, and making art about identity as it relates to community interaction is a way to structure and analyze those influences in preparation for partnering with a new community in the service-learning project.

Creating Tinderbox mindmaps is intended to be a preliminary way for the pre-service teachers to explore the intersections of self and community. This process will help them plan for their collage and poem about a specific community or aspect of a community important to their personal identity. The collage was selected as the medium for the project because Photoshop®, a very important digital image manipulation software, lends itself to the art form. Photoshop® allows the user to cut, crop, layer, and alter images in many different ways. Photoshop®'s tools allow the user to imitate traditional collage, add effects from photography, or use filters that are distinctly digital. The pre-service teachers will create poems along with their collage to practice their writing skills in preparation for teaching an interdisciplinary art and English service-learning unit. The central artworks related to the big idea and corresponding to the media of collage and poetry are the collage titled "The Block," the book *The Block* by Romare

Bearden with poetry by Langston Hughes, and a poem by George Ella Lyons entitled "Where I'm From."

The artists I have chosen as part of this unit plan exemplify diverse backgrounds, each uniquely American and recent or contemporary. Romare Bearden, an African American artist, explored the jazz of the Harlem Renaissance in his work, even though he was raised primarily in North Carolina (Fine, 2003). His work is particularly applicable to the big idea of community because of his focus on the people and music of Harlem. Although Bearden's medium and the big idea are the same as the unit plan, it is important that the students understand they are not meant to imitate Bearden's style but find their own personal meaning and style.

The following key concepts and essential questions are important foci for artists and teachers.

Key Concepts

An artist teacher belongs to various communities which are part of his or her layered, individual identity.

Artists can virtually and visually map their community involvements in multiple ways.

Art teachers can work for social justice and strengthen their communities by developing service-learning partnerships with their schools, universities, and neighborhood constituents

Teachers and their curricula are influenced by the communities they choose to involve themselves.

Essential Questions

How are our identities constructed?

How do the communities we interact with influence the construct our individual identities?

How can artists and researchers map and display out their community involvement visually?

How can art teachers organize and build communities inside and outside of the classroom?

Day 2

Objectives:

Community:

Students will be able to define "community."

Students will imagine a new community for themselves.

Students will begin researching and writing about the community with which he or she is most involved: family, recreational, occupational, age, gender, etc.

Art History:

Students will conduct research about an artist related to and/or representative of the student's chosen community.

Art Criticism:

Students will analyze their own works, peer works, and researched historical and contemporary works.

Aesthetics:

Students will analyze the aesthetic value of their own works, peer works, and researched historical and contemporary works.

Art Production:

Students will learn how gather and manipulate images for a collage.

Computer Technology Skills:

Students will conduct visual research on the Internet, finding images to potentially incorporate into their collage.

Students will familiarize themselves with image and Internet copyright laws.

Students will learn how to navigate the latest Mac operating system.

Students will learn how to control Photo Booth™ .

Students will learn the basics of Adobe® Photoshop®.

Itinerary:

Exercise: Community

(5 minutes) Introduce artists and concepts:

Bronzeville Boys and Girls by Faith Ringgold, 2006

Kabuki I by David Mack

Kabuki II: Dreams by David Mack

The Block illustrated by Romare Bearden and poetry by Langston Hughs

"The Block" collage by Romare Bearden

(5 minutes) Discuss and explain the goals of the exercise:

to define the important elements of a community.

to explore their personal stance on what communities are important to them.

to begin to understand the capabilities of Photoshop® and know how to use it.

Discussion questions might include:

What community do you belong to? If you belong to many, which is most important to you? Why?

How does your involvement in your community shape your personal identity?

How do you suppose individuals in one community view you differently than another might? Why?

(30 minutes) Demonstrate the most basic functions of the operating system, Photo Booth[3]™, and Photoshop®. Follow the handout while creating a demonstration collage related to the big idea, Identity and Community. Include related images in the demonstration.

(20 minutes) Allow for independent work or guide students through Photoshop® tutorials online, depending on the readiness and abilities of the students. Offer individual help. Encourage students to use the Photoshop® "help" function (F1).

(10 minutes) Break.

(5 minutes) Compare and contrast the functionality of Photoshop® and TuxPaint™.

(5 minutes) Review the next assignment: Most important community collage. Explain the connection between a Tinderbox web about community and a Photoshop® collage.

(5 minutes) Introduce and demonstrate Tinderbox using a provided template. Introduce "I am from..." poem exercise and its relationship to the template.

(20 minutes) Planning: Create a Tinderbox web mapping individual community involvement.

(35 minutes) Allow the students time to continue working on the Tinderbox web, Photoshop®, and the poem.

Homework:
Bring in high resolution, large image files showing their interactions with the community most important to them.

3 Photo Booth™ is a small software application included on most Mac computers which have a camera built in above the screen. Photo Booth™ may be used to take pictures of the user and/or their surroundings. Some digital filters are included, such as black and white, warp, or "x-ray".

I am from... A Swing Dancing Community

I am from a place where Aris Allen shoes are the height of fashion,
The stark white leather shoes with soles that have never seen pavement,
But well-worn through hours of intense and graceful movement.
I am from a place where polka dots are still all the rage.
Skirts swish on the hem of a melody but midrif bellies have yet to come into style.

I am from a world where I am welcome to sleep and eat in a stranger's house
And strangers are welcome to do the same at mine.
With dancers, none of us are truly strangers;
We all know somebody that knows somebody.
In a society of nomads and virtual entities, we know “goodbye” never is.

I am from long conversations about the importance of thanking your partner,
And the awkwardness and comfort of touch,
Why it's always the guy's fault,
And the joke that “real men let go on 5,”
Or that women really love or really hate to get picked up.

I am from winters with heat so intense that the windows drip with condensation
And no one has any misgivings--
We all know it's our own sweat running down the walls,
Splashing from our brows,
And making our soles stick to the floor.

I am from the blaring sound of an 8-piece big band,
Their energy pulsing in the crowd and floorboards:
With a tat-a-tat tat-a-tat drum
And a waaaaoohaaaah trombone
And a sax solo that seems to never end.

I am from those moments with national celebrities
That outsiders have never heard of,
But dancers swoon to watch,
Long to meet,
And dare each other to ask for a dance.

I am from a moment in time
Where everyone is happy
Even if they're not,
When all of fate rests, ignoring the partnered groups on wooden floors,
Where grace of movement, musicality, and flow are the only elements of import.

Photoshop 1

1. Use **Photo Booth™** to take a picture of self.
2. Click and drag to **save the photo** to the desktop.
3. **Create a folder** by right clicking or control+clicking on the desktop. Give it your last name.
4. **Open finder**. Open the Documents folder. Drag the new folder from the desktop to the Documents folder.
5. **Open Safari**. Search for images related to your real or imagined community on www.google.com
6. **Download** a photo related to your real or imagined community by right clicking and selecting "download" from the pop-up menu. Save the photo to the new folder.
7. **Open** the self-portrait and community photos by dragging them onto the Photoshop icon in the taskbar.
8. **File > New**: 8" x 10" with a resolution of 72 dpi, the standard resolution of a computer monitor.
9. **Save** as PSD in the same folder. Remember to save often.
10. **Photoshop Workspace**: under Windows, make sure that the Toolbar, History, and Layers windows are checked.
11. **Lasso Tool**: Select objects in one image to copy into another.
12. **To add to a selection**:

    hold down the **Shift key** while making a selection with the selection tool.
13. **To subtract from a selection**:

    hold down the **Option key** while making a selection with the selection tool.
14. **Edit > Copy** (#C) to copy the selected portion of the image onto the clipboard.
15. **Edit > Paste** (#V) to paste the copied portion of the image into the 8" x 10" image file.
16. Find the **Layers** window. Note that the pasted portion is on a seperate layer.
17. **Edit > Transform** (#T) to change the size of the pasted image.
18. **Magic Wand Tool**: Click on the image to select an area of similarly colored pixels. Use the option bar at the top of the screen to change the Tolerance. This alters the threshold of the selection or the range of colors selected by the tool.
19. **Layers**: Rearrange the order of the layers. Note how the overlapping changes based on the order.

20. **Layer Opacity**: At the top of the layers window, use the Opacity slider to adjust the transparency of any selected layer.
21. **Eraser tool**: Change the size, shape, and transparency of the tool using the options at the top of the screen. Use this tool to erase stray pixels.
22. **Undo** – (#Z) Under the History window, select the various steps to undo the functions.
23. **Save**.

Identity and Community

Day 3

Objectives:

Community:

Students will research and write about the community with which he or she is most involved: family, recreational, occupational, age, gender, etc.

Students will make connections between their personal identity and the communities in their lives.

Art History:

Students will conduct research about an artist related to and/or representative of the student's chosen community.

Art Criticism:

Students will analyze their own works, peer works, and researched historical and contemporary works.

Aesthetics:

Students will analyze the aesthetic value of their own works, peer works, and researched historical and contemporary works.

Art Production:

Students will learn how gather and manipulate images for a collage.

Computer Technology Skills:

Students will conduct visual research on the Internet, finding images to potentially incorporate into their collage.

Students will familiarize themselves with image and Internet copyright laws.

Students will learn the basics of Adobe® Photoshop©.

Itinerary:

(5 minutes) Review assignment: Community collage. Students should bring in photos related to their favorite and/or primary community. Give a reminder about the “I am from...” poem.

(5 minutes) Review Tinderbox skills. Review Photoshop skills covered in the previous tutorial and trouble shoot problems the students encountered. Call on student volunteers to demonstrate solutions to common problems.

(30 minutes) Photoshop® tutorial 2. Follow the handout using images related to the academic campus community.

(20 minutes) Students will be allowed more time to experiment in Photoshop®. Students should begin manipulating their photos for a collage about their favorite community. Trouble shoot more problems the students encountered.

(10 minutes) Break.

(80 minutes) Students will have time to continue working on their community collages with help as needed. Help students find optional “easy” tutorials online when necessary.

Photoshop 2

Photoshop® primarily uses:
***RASTER graphics*-** made with square pixels; bitmapped; creates stair-stepped pattern edges around curves when zoomed or transformed.

Illustrator® primarily uses:
VECTOR graphics- made with vectors, mathematical curves based on points and angles allowing for smooth curves regardless of size alteration.

1. **Open** a new 8" x 10" file with a resolution of 300dpi, standard print resolution.
2. **Marquee Tool**- Select rectangular shapes.
3. Hold Shift to add or Option to subtract from a selection.
4. **Eyedropper Tool**- Click on a color in an image to make it the foreground color. (Option + click to make it the background color.)
5. **Edit > Fill** to fill a selection with a solid color.
6. **Magic Selection Tool** - Click and drag over areas of similar color to create a selection.
7. **Select > Feather > 40 pixels**. Click Ok.
8. **Drag and Copy** from one file to another using the **Move Tool.**
9. **Layer > New** to create a new layer.
10. Draw on the new layer with the **Paint Brush**.
11. **Drop Shadow**- is a Layer Blending Property that can create a shadow on lower layers. (Note the thumbnails for each layer.) Double click on the top-most layer with an image. In the dialog box, click on the Drop Shadow option on the left side until it is highlighted as well as checked. Adjust the opacity and size of the shadow using the options that become available in the new dialog.
12. **Clone Stamp Tool** – Option + click on the area to be cloned, then move the cursor to another area and paint by clicking and dragging.
13. **Smudge Tool –** Drag this tool to create a smeared pastel effect.
14. **Blur tool**: Use this tool to soften rough edges or unwanted texture.
15. **Color/Contrast Adjustments –** Image > Adjustments > Levels adjust the sliders for Red, Green, and Blue to get a better color or contrast in your image or get the contrasts in two images to match one another.
16. **Filters** – Select a layer or a selection and then use any filter from the drop down menu. The dialog window will have a preview of the effect.
17. **Save** as PSD. **Save as** JPG.

Identity and Community

Day 4

Objectives:

Community:

Students will research and write about the community with which he or she is most involved: family, recreational, occupational, age, gender, etc.

Art History:

Students will conduct research about an artist related to and/or representative of the student's chosen community.

Art Criticism:

Students will analyze their own works, peer works, and researched historical and contemporary works.

Aesthetics:

Students will analyze the aesthetic value of their own works, peer works, and researched historical and contemporary works.

Art Production:

Students will learn how manipulate images for a collage.

Computer Technology Skills:

Students will learn the basics of Adobe® Photoshop®.

Itinerary:

(5 minutes) Mini-critique, trouble shooting, and progress report.

(20 minutes) Review and explain service-learning. Discuss the big idea of community, lesson planning, and service-learning partnerships.

(10 minutes) Lesson planning.

(25 minutes) Students will have more time to work on community identity collage.

(10 minutes) Break.

(70 minutes) Students will have more time to work on community identity collage.

Identity and Community

Day 5

Objectives:

Community:

Students will make connections about the communities with which they involved.

Art Criticism:

Students will analyze their own and peer works.

Aesthetics:

Students will analyze the aesthetic value of their own works and peer works.

Art Production:

Students will complete digital collages.

Itinerary:

(20 minutes) Last minute help on community identity collage.

(100 minutes) Critique.

(20 minutes) Students will discuss the purpose and potential of service-learning. Plan for meeting.

Identity and Community Collage

	Excellent	Satisfactory	Needs Work
Collage Aesthetics 20	Clear visual references to cultural, familial, and/or personal meanings. Complex symbols.	Somewhat clear visual references to cultural, familial, and/or personal meanings.	Obscure visual references. Collage may not directly relate to personal identity.
Collage Studio Production 30	Excellent attention to detail: clean edges along pasted images and no pixelation. Student used Photoshop® functions not covered in the class tutorial.	Some unfinished edges or pixelation. Student mastered basic functions of cut and paste.	Collage appears unfinished. Weak design seems to be the result of a lack of understanding about Photoshop® functions.
Research and Poem 20	Complex Tinderbox web on community interactions and identity. Well-thought-out poem.	Simple Tinderbox web on community interactions and identity or minimal work on the poem.	Missing Tinderbox web or poem.
Lesson Plan 30	Objectives, itinerary, and assessment all match and are founded on a thought-out, solid concept. Integrated service-learning component.	Objectives, itinerary, assessment, or concept are weak or don't match one another. Weak service-learning component.	Parts of lesson plan missing. Concept is a replication of in-class newsletter assignment. Weak or unrelated service-learning component.

Meet with K-12 Service-Learning Partner

Day 6

Objectives:

Community:

Students will become familiar with a nearby middle or high school art class and practicing teacher.

Service-learning:

Students will plan an art lesson to supplement the literary needs of a nearby middle or high school.

Students, practicing teachers, and middle or high school students will meet one another.

Itinerary:

College students will drive to the service-learning site, find parking, sign in, find their assigned classroom, and meet their cooperating teacher. Students should observe throughout the class period and take notes on the student's literary and learning abilities, the classroom environment, and the cooperating teacher's classroom management strategies. Later, students will use this information to guide their lesson planning strategies and frame their service-learning project.

If the cooperating teacher allows (and the students are ready), the college students could discuss their ideas about a potential service-learning project with the K-12 students and get some feedback.

Best case scenario, this should happen during regular class time for both the students and the cooperating teacher.

Online Homework:

Respond to the following reflective journal questions in the online class discussion forum.

"The Setting: What are your first impressions of the site? Describe settings, people, actions and positive or negative feelings you are having" (Cone and Harris, 1990, p. 43).

Planning: What needs did the representatives of the school community request that this service-learning partnership meet? If you had any interaction with the students, did they express any particular preferences about what they would like to learn about art and visual culture?

Community: Stories of Ritual and Tradition

Rationale

Often, telling stories about the activities that bring a community together makes apparent the community members' values and beliefs. Writing and drawing about the pre-service teachers' community involvement could highlight important differences and similarities between them. As preparation for encountering difference in the community where they do their service-learning project, this could be an important exercise.

Contemporary professional graphic novelists, comic book artists, and children's book artists create works in a variety of genres, well beyond the superheroes which made comics popular. "[Graphic novels] describe the complications of relationships and evoke the malaise and romance of urban life, the dull neon street lights of suburbia, the desperate ecology of schools, the need to escape from home, and the nostalgic attraction of childhood. Graphic novels describe worlds of fantasy and imagined power that young people often contemplate" (Graham, 2008, p.12).

Creating narrative artworks about community rituals and traditions is an appropriate project for this topic because such narrative works are popular visual culture items familiar to middle school and high school students— the age group of the service-learning partner students. Although comics and graphic novels are still barely recognized in fine art circles (McCloud, 1993), the influence of comics on movies is clear in recent years with the debut of such screenplays as *Spiderman, Iron Man, Daredevil, The Fantastic Four*, and the Batman movie *The Dark Knight.*

Each of the artworks included in this unit of study deals with the rituals and traditions important to specific communities. The central artwork for focused debate and

analysis is *En Mi Familia* (1996) by Carmen Lomas Garza. This semi-autobiographical work especially applies to the big idea "Community: Stories of Ritual and Tradition" because it directly deals with the rituals and traditions of Garza's Latina community. Each page depicts a common event within their community: cooking and eating *empanadas* with family and friends, eating barbecue or hitting piñatas at children's birthday parties, passing by a neighbor preparing for her *quincinera*, a dance party, and visiting to the *curandera* (healer).

Key Concepts

Artists tell stories about the rituals and traditions of their community in various forms: comics, graphic novels, picture books, and historical works.

Narrative artists use various visual devices, techniques, and formats to communicate their stories with varying degrees of readability.

The various formats artists use to communicate their stories have different connotations and status associated with them.

Essential Questions

What is important to your chosen community?
What is narrative art? What forms does narrative art take?
What visual clues do artists give to inform their viewers?
What makes a work "high" or "low art?"

Day 7

Objectives:

Community:

Students will identify rituals and traditions that define a community important to them.

Art History:

Students will conduct research on the history of sequential and narrative art forms.

Students will learn about various narrative devices used throughout history.

Art Criticism:

Students will analyze narrative devices.

Aesthetics:

Students will analyze the aesthetic value of various narrative works of art.

Art Production:

Students will learn about the process of story creation and sequential art production.

Computer Technology Skills:

Students will learn to use Adobe® Illustrator® to draw.

Itinerary:

(10 minutes) Discuss the needs, wishes, and ideas of the partner middle or high school students. Students will discuss the purpose and potential of service-learning and think about their roles in the partnership.

(5 minutes) Motivation:
"In the last unit, you asked yourself what community you most identity with. In this unit, we will be creating a narrative work of art depicting the rituals or traditions related to this community."

(25 minutes) Introduce and distribute copies of several narrative works of art:
Tar Beach by Faith Ringgold
Egyptian Hieroglyphics
Beayux tapestry
Mexican muralists: Diego Rivera, Orozco, & Siqueiros
En mi Familia by Carmen Lomas Garza

Share and switch books and print outs periodically. Allow the students plenty of time to read and analyze the works.

When the students have had the chance to read a few books, begin discussion with the following guiding questions:

Which was your favorite book? How did the story relate to the big idea of "community"? Discuss plot structures. Compare the various narrative devices used in the works.

(10 minutes) Planning:
Add to the Tinderbox map, the community web. What activities bring your community together? How do you prepare for them? How do you celebrate? Make a new note for each community activity, then select between 3 and 5 activities to sketch.

(10 minutes) Break.

(30-40 minutes) Illustrator® tutorial

(40-50 minutes) Students may sketch, research, experiment with Illustrator®, and begin drawing panels.

Illustrator

1.) Color picker, Swatches, Work Area
2.) Pen tool
    - click to create points
    - click and drag to bend the line
    - clicking on the first point will create a closed shape
        - draw an open shape trapezoid near the top of the working area
        - draw a closed cloud shape next to the trapezoid, making sure to close the shape by clicking on the first point.
2.) Convert point tool
    - alter the lines on either side of a point by clicking on the point and manipulating the handles that appear
        - alter the trapezoid to create a cloud shape
3.) Delete point tool, Add point tool
    - points can only be added along an existing line
        - add points to either cloud to make it more fluffy
        - note the difference between
4.) Shape tool
    - rectangle, elipse, etc.
    - holding **shift** constrains the proportions of the shape (eg. Elipse to circle, rectangle to square.
        - create a yellow circle for a sun in front of the cloud shapes
        - create a long green rectangle for the ground
5.) Selection tools
    - Point selection tool
    - Object selection tool
        - using the point selection tool, experiement with altering the shape of the clouds
        - select the sun
6.) Layers and Objects
    - similar to Photoshop®, but with more grouping
    - each new line or shape is a new object
        - move the sun to behind and between the clouds

7.) Paint Brush

- creates points and lines along a path
  - make a flower pedal squiggly shape

8.) Copy / Paste

- apple C to copy
- apple V to paste
  - copy the flower shape and paste it, then alter the color of the second shape to make multi-colored pedals

9.) Transform

- use the Object Selection tool to select an object
- Edit> Transform/Scale
  - shrink the second pedal shape

10.) Stroke with no fill

- use the white square with a red line through it in the fill box to make a stroke
  - use the Pen tool to make a green curved line for the flower stalk
  - use the Pen to make a closed leaf shape with a green fill

11.) Add to Shape/ Exclude

- combination shapes
  - place a closed shape over the leaf shape
  - use the object selection tool while holding shift to select both the object over the leaf shape and the leaf shape
  - click on the exclude icon to make a hole in the leaf

Stories of Ritual and Tradition

Day 8

Objectives:

Community:

Students will identify rituals and traditions that define a community important to them.

Art History:

Students will learn about various narrative devices used throughout history.

Art Criticism:

Students will analyze narrative devices.

Aesthetics:

Students will analyze the aesthetic value of various narrative works of art.

Art Production:

Students will learn about the process of story creation and sequential art production.

Computer Technology Skills:

Students will learn to use Adobe® Illustrator® to draw.

Itinerary:

(10 minutes) Looking at Art:
Review the big idea of Community and the topic Rituals and Traditions. Check progress on the story sketches and writing.

(5 minutes) Review Illustrator® functions with voluntary student demonstrations.

(10 minutes) Depending on the skill set of the students, introduce a visual narrative-building exercise, such as ordering a given set of pictures to create a story without words.

Divide the class into small groups. Hand out sets of pictures, such a 30 images of cats or 30 pictures of the same car in different locations. Instruct the students to order the pictures in such a way that they tell a story without their having to explain it. They may use all the pictures in one story, or all of the pictures in many different stories, each story using at least 5 pictures.

When most groups appear to have used all their photos, ask groups to share their stories with the class. If space in the classroom allows, students may walk around and see the various images in order at each others' desks. Also, once the students have seen the visual stories, ask a group leader if they would explain their story and give it a narrative. Was his or her narrative the same as what you imagined? Discuss.

(45 minutes) Students may write in their hypertext web, sketch, research, experiment with Illustrator®, begin making drawings for the community story.

(10 minutes) Break.

(10 minutes) Discuss unit-plan writing, service-learning concepts, and service-learning partnership progress.

(60 minutes) Students have time to draw at least one panel for their sequential artwork.

Stories of Ritual and Tradition

Day 9

Objectives:

Community:

Students will identify rituals and traditions that define a community important to them.

Art History:

Students will learn about various narrative devices used throughout history.

Art Criticism:

Students will analyze narrative devices.

Aesthetics:

Students will analyze the aesthetic value of various narrative works of art.

Art Production:

Students will learn about the process of story creation and sequential art production.

Computer Technology Skills:

Students will learn to use Adobe® Illustrator® to draw.

Students will learn to use Comic Life™ to layout images in a comics format.

Itinerary:

(10 minutes) Looking at Art:
Discuss the topic Rituals and Traditions and how it relates to the students' stories. Check progress on the story sketches, writing, and digital drawings. Discuss and compare the various narrative devices used in the students' work. How much text will be needed to support the images and convey the story?

Review Illustrator® functions with voluntary student demonstrations.

Talk about the ways that artwork are displayed: gallery or museum wall exhibition, comic publication, and hard-bound graphic novel or children's book publication. What connotations are associated with each artform?

(45 minutes) Sketch, research, experiment with Comic Life™, and make drawings for the community story.

(10 minutes) Break.

(5 minutes) Introduce Comic Life™:

Demonstrate how to save Illustrator® images to *.gif format (**Save for Web**). Demonstrate how to select a frame layout, drag and drop images into the layout, and add text as necessary. Demonstrate how to save the layout for futher alteration in a Comic Life™ file or for print in a pdf file.

Discuss how much text will be needed to support the images and convey the story in the demonstration.

(70 minutes) Students have time to draw at least one panel for their sequential artwork and being experimenting with various comic layouts.

Stories of Ritual and Tradition

Day 10

Objectives:

Community:

Students will identify rituals and traditions that define a community important to them.

Art History:

Students will learn about various narrative devices used throughout history.

Art Criticism:

Students will analyze narrative devices.

Aesthetics:

Students will analyze the aesthetic value of various narrative works of art.

Art Production:

Students will learn about the process of story creation and sequential art production.

Computer Technology Skills:

Students will use Adobe® Illustrator® to draw.

Students will use Comic Life™ to layout images in a comics format.

Itinerary:

(15 minutes) In-process critique. Discuss the topic Rituals and Traditions and how it relates to the students' stories. Discuss and compare the various narrative devices used in the students' work. How much text will be needed to support the images and convey the story?

Review Illustrator® and Comic Life™ functions with voluntary student demonstrations.

(45 minutes) Students will have time to make drawings for the community story or experiment with Comic Life™.

(10 minutes) Break

(5 minutes) Review Illustrator® or Comic Life™ functions. Take student volunteers to demonstrate useful or new functions.

(65 minutes) Students have time to refine their drawings, lay them out in Comic Life™, and add text bubbles.

Stories of Ritual and Tradition

Day 11

Objectives:

Community:

Students will compare and draw connections between the rituals and traditions that define communities.

Art Criticism:

Students will analyze the functionality of narrative devices in their own work and peer works.

Aesthetics:

Students will analyze the aesthetic value of their own work and peer works.

Art Production:

Students will learn about the process of story creation and sequential art production.

Computer Technology Skills:

Students will use Adobe® Illustrator® to draw.

Students will use Comic Life™ to layout images in a comics format.

Itinerary:

(20 minutes) Students will have time to review and print their comic layout.

(60-90 minutes) Critique comic layouts. Discuss lesson plans. Use the following rubric. Include a 10 minute break in the middle.

(10-25 minutes) Discuss feasibility of implementing the lesson plans and progress with the service-learning partner.

(5 minutes) Discuss and preview the next stage of making, layout in InDesign®. Show examples of the capabilities of Adobe® InDesign® and explain the applicable uses for the storybook project.

"In the last lesson, you created a series of images and created a layout in Comic Life™. Now we are going to try a new layout in InDesign®. This is a software program created specifically for print design, such as newspapers, newsletters, brochures, and books."

Stories of Ritual and Tradition Rubric

	Excellent	Satisfactory	Needs Work
Aesthetics 20	The images illustrate a clear concept and design. The images have a flow for easy reading.	The images illustrate a good design. The images have a flow for easy reading.	The images are hard to follow. The sequence is unclear.
Studio Production 30	The images display an understanding of how the software programs function. (Ex. Using Illustrator® objects as shapes, not paint lines.)	The images are relatively concise and exhibits some understanding of vector graphics. May have many unnecessary lines.	The images incorporate raster graphics or have many unnecessary or unconnected lines.
Story 20	The story relates to the topic of Community Rituals and Traditions and illustrates personal depth and involvement.	The story somewhat relates to the topic of Community Rituals and Traditions or illustrates some personal depth or involvement.	The images do not form a story or are only loosely related to the topic of Community Rituals and Traditions.
Lesson Plan 30	Objectives, itinerary, and assessment all match and are founded on a thought-out, solid concept. Integrated service-learning component.	Objectives, itinerary, assessment, or concept are weak or don't match one another. Weak service-learning component.	Parts of lesson plan missing. Concept is a replication of in-class newsletter assignment. Weak or unrelated service-learning component.

Unit Part 3: Community and Service-Learning

Rationale

Integral to service-learning is idea of the reciprocity, equally learning from and serving the community partners. The point of forming an educational service-learning partnership is to meet an unmet community need. In this portion of the semester-long unit, the pre-service teachers will be teaching their own lessons based on the big idea of community, using the computer technology previously covered in the course, and meeting the unmet needs of additional literary, technology, and artistic instruction in the partner school. The pre-service teachers would be required to use the big idea of community in their lessons.

The pre-service teachers would be required to use the big idea of Community in their unit plan. For the purposes of this thesis project, I will assume that the partner school is in need of some help with their English literacy skills. Thus the pre-service teachers would be required to somehow incorporate an English literacy lesson and include Virginia State Standards Of Learning in their lesson plan. The use of comics and other narrative art is highly encouraged as the previous portion of the semester has focused on these extensively. A pre-service teacher's lesson plan for eighth grade students on narrative art might include Virginia Standard Of Learning 8.7:

The student will write in a variety of forms, including narrative, expository, persuasive, and informational.

a) Use prewriting strategies to generate and organize ideas.
b) Organize details to elaborate the central idea.
c) Select specific vocabulary and information.
d) Revise writing for word choice, sentence variety, and transitions among paragraphs.

Use available technology. Having some boundaries can help them focus on actually learning the software and teaching their lessons.

Many of the reflection questions included in the following lessons (p. 85, 87, 89, and 91) deal with encountering differences between their communities and the new community of the "served." Additionally, since this course is focused on learning to use computer technology to create digital art and teach others how to do likewise, many of the key concepts and essential questions (and reflective prompt questions) address the technological aspects goals. The pre-service teachers would be required to respond to the reflection questions through blackboard[4] or an online wiki[5], further involving them with computer technology.

Key Concepts

Teachers best function as learning guides rather than knowledge experts; being an expert in a time-sensitive subject matter such as computer technology includes the ability to recognize the value of the students' participation in the instruction.

Teachers need to be aware of how their personal experience shapes their view point and be willing to examine other perspectives.

Teachers should be aware of and able to implement current teaching and curricular strategies.

Teachers should be attentive to their students' needs and preferences and adapt to them.

There are many excellent learning strategies appropriate to use when teaching or learning about computer technology: experimentation, demonstration, instruction, written instruction, using the help function, and watching applicable video tutorials online.

Service-learning shapes society.

Essential Questions

How can this class best serve our community partners?

What is the best way to learn about computer technology?

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4 Blackboard® is a company and a web-based application which allows specific users at registered universities to interact in ways allowed by the educator/web master, such as posting to a discussion board where other users may view their post and respond, turning in homework directly to the teacher, or read teacher-created content. For more information, see http://www.blackboard.com/.

5 A wiki is a free website which allows users to register and freely edit content. In this case, the wiki would be set to private and password-protected to protect the privacy of the students.

What is the best way to teach others how to use computer technology to make art?

What kinds of art lessons are appropriate to teach using the computer as a medium?

How does service-learning relate to the idea of social justice?

Day 12: Planning and Book Layout

Objectives:

Community:

Students will discuss the purpose and potential of service-learning with the community partners and decide upon the roles in the partnership.

Students will share their lesson plans with one another in small groups and discuss how their lessons relate to the big idea of community.

Teaching:

Students will gather materials and further plan for their service-learning lessons.

Computer Technology Skills:

Students will learn about the basics of Adobe® InDesign®.

Itinerary:

(10 minutes) Students will share their lesson plans with one another in small groups and discuss how their lessons relate to the big idea of community.

(40 minutes) Review the wishes and ideas of the partner middle or high school students. Students will discuss the purpose and potential of service-learning and decide upon the roles in the partnership.

(15 minutes) Motivation:
Review: “In the last lesson, you created a series of images and creaetd a layout in Comic Life™. Now we are going to try a new layout in InDesign®. This is a software program created specifically for print design, such as newpapers, newsletters, brochures, and books.”

Looking at Art:
Look again at the example works: *Tar Beach*, *The Year I Didn't Go To School*, and *Kabuki: Dreams*.

(15 minutes) InDesign® tutorial. Follow the handout using images related to the academic campus community.

(10 minutes) Break.

(70 minutes) Students will have time to arrange their images in a children's book format.

Optional variation:

Alter classmates' images to create a new story.

Create a classmate community/yearbook using all student comics.

Students may partner up or create groups to complete their final book layout.

Community: Stories of Ritual and Tradition

Day 13

Objectives:

Community:

Students will continue to formulate their role in and plan for the service-learning community partnership.

Art Criticism:

Students will analyze narrative devices.

Aesthetics:

Students will analyze the aesthetic value of various narrative works of art.

Art Production:

Students will learn about the process of story creation and sequential art production.

Computer Technology Skills:

Students will learn to use Adobe® InDesign® to lay out their images for print in a book.

Itinerary:

(5 minutes) Discuss progress with lesson plans and the partnership with the middle school.

(10 minutes) Review InDesign® skills. Check in on progress on book layout and service-learning lesson plans.

(50 minutes) Students will have time to arrange their images in a children's book format.

(10 minutes) Break.

(70 minutes) Students will have time to arrange their images in a children's book format.

Community: Stories of Ritual and Tradition

Day 14

Objectives:

Community:

Students will continue to formulate their role in and plan for the service-learning community partnership.

Art Criticism:

Students will analyze narrative devices.

Aesthetics:

Students will analyze the aesthetic value of various narrative works of art.

Art Production:

Students will learn about the process of story creation and sequential art production.

Computer Technology Skills:

Students will learn to use Adobe® InDesign to lay out their images for print in a book.

Itinerary:

(10 minutes) Discuss progress with lesson plans and the partnership with the middle school.

(10 minutes) Check in on progress on book layout and service-learning lesson plans.

(40 minutes) Students will have time to arrange their images in a children's book format.

(10 minutes) Break.

(70 minutes) Students will have time to arrange their images in a children's book format. Remind students that the following class is a critique day. Following the critique, we will begin finalizing our lesson plans.

Community: Stories of Ritual and Tradition

Day 15

Objectives:

Community:

Students will continue to formulate their role in and plan for the service-learning community partnership.

Art Criticism:

Students will analyze narrative devices.

Aesthetics:

Students will analyze the aesthetic value of various narrative works of art.

Art Production:

Students will learn about the process of story creation and sequential art production.

Computer Technology Skills:

Students will learn to use Adobe® InDesign® to lay out their images for print in a book.

Itinerary:

(70 minutes) Students will have time to arrange their images in a children's book format or work on their lesson plans.

(10 minutes) Break.

(60 minutes) Critique. Use the following questions to guide the critique:
Do the images flow well with the layout? Are the pages easily read? Where does the eye track across the page?
How would you create this layout in InDesign®? Could it have been done as well or as easily in Photoshop® or Illustrator®?

Remind students to come prepared to work on their lesson plans next class period.

If the critique finishes early, start preparing to teach their lessons.

Community and Service Learning

Day 16

Objectives:

Community:

Students will continue to formulate their role in and plan for the service-learning community partnership.

Art History:

Students will conduct research about the history of narrative art for the purpose of teaching about it and discussing it with their service-learning partner students.

Art Production:

Students will plan for teaching the process of story creation and sequential art production.

Computer Technology Skills:

Students will plan to teach the skills necessary to create a book: basic computer operating system skills, Adobe® Photoshop® and/or Illustrator®, Adobe® InDesign® and/or Comic Life™.

Itinerary:

(10 minutes) Review the definition of service-learning: the integration of community service into academic curricula for civil participation and experiential learning. Review the specific goals of our service-learning project: provide quality art lessons with emphases on computer technology and English literature SOLs to the middle school students and learn about teaching through the experience. Discuss the goals specific to this service-learning project and how the students are planning to meet them through their lessons.

(5-10 minutes) Students will meet in small groups to discuss their ideas and progress on their lesson plans.

(40-45 minutes) Students will have time to write their lesson plans, conduct research about their chosen topic within the big idea of Community, and create PowerPoint™ presentations.

If necessary, give a 5-10 minute demonstration of how to use PowerPoint™ to create a presentation.

(10 minutes) Break.

(5-10 minutes) Students will meet in small groups to discuss their ideas and progress on their lesson plans.

(60 minutes) Students will have time to write their lesson plans, conduct research about their chosen topic within the big idea of "community", and create PowerPoint™ presentations.

Remind students to come prepared to present their lessons and teach their classmates in the next class period.

Community and Service Learning

Day 17

Objectives:

Community:

Students will continue to formulate their role in and plan for the service-learning community partnership.

Art History:

Students will conduct research about the history of narrative art for the purpose of teaching about it and discussing it with their service-learning partner students.

Art Production:

Students will plan for teaching the process of story creation and sequential art production.

Computer Technology Skills:

Students will plan to teach the skills necessary to create a book: basic computer operating system skills, Adobe® Photoshop® and/or Illustrator, Adobe® InDesign® and/or Comic Life™.

Itinerary:

(5 minutes) Review the goals of service-learning. Discuss the goals specific to this service-learning project and how the students are planning to meet them through their lessons.

(50 minutes) Students will present their lesson plans to the class, giving a brief overview of their lessons, the needs of the middle or high school students in their class, and their chosen topic to teach as it relates to Community, art, and computer technology.

(10 minutes) Break.

(75 minutes) Students will present their lesson plans to the class, giving a brief overview of their lessons, the needs of the middle or high school students in their class, and their chosen topic to teach as it relates to Community, art, computer technology, and the needs of the school (literacy.)

When all students have presented, allow them time to refine their work.

Double check to make sure the students remember how to get to the service-learning location, where to park, where to sign in, which classroom they were assigned, and what time they need to be there to check in.

Community and Service Learning

Day 18: Action

Objectives:

Community:

Students will serve their community through a service-learning partnership in which they partner with a middle or high school class to teach a unit on the big idea of Community.

Art History, Criticism, and Aesthetics:

Students instruct their middle and high school students with relation to each of these components as outlined in their lesson plans.

Art Production:

Students will instruct a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will provide instruction in computer technology to a middle or high school class as well as trouble shoot the problem their students encounter.

Itinerary:

(90 minutes) Students will teach their first lesson with their partner classes.

Online Homework:

Students will post reflection about their first lesson on blackboard or a class wiki.

"Players in the Drama: Describe who you work with, their lives, their views, their goals in life. Include some personal reaction to the individual or individuals with whom you are working" (Cone and Harris, 1990, p. 43).

"As a community service provider, you play a different role than you do as a [VCU] student. Describe this new role. What specific tasks and behaviors are expected of you? What obligations and rights do you have as a result of being in this new role?" (Cone and Harris, 1990, p. 43).

Community and Service Learning

Day 19: Reflection

Objectives:

Community:

Students will reflect on how their lesson is serving their community partner.

Art History, Criticism, and Aesthetics:

Students reflect upon the successful and "mistakes in their Art History, Criticism, and Aesthetics instruction.

Art Production:

Students will reflect upon their instruction of a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will reflect upon their computer technology instruction to a middle or high school class.

Students will discuss and find solutions to unresolved technical problems encountered in the classroom.

Itinerary:

(5 minutes) Review the goals of service-learning. Discuss the goals specific to this service-learning project.

(20 minutes) Students will have time to meet in small groups to discuss their teaching experience. Provide an informal reflection question prompt about their first teaching experience with their community partners.

(20 minutes) Have a guided, academic, formal discussion about the first teaching day.

(95 minutes) Allow students time to take a break, conduct further research for their lesson plans, find solutions to technical problems they were unable to resolve in the classroom, and write their formal and informal reflection posts online.

Online:

Students will post a formal reflection about their first lesson on blackboard or a class wiki and respond to two informal reflection posts written by their classmates.

Community and Service Learning

Day 20: Action

Objectives:

Community:

Students will serve their community through a service-learning partnership in which they partner with a middle or high school class to teach a unit on the big idea of Community.

Art History, Criticism, and Aesthetics:

Students instruct their middle and high school students with relation to each of these components as outlined in their lesson plans.

Art Production:

Students will instruct a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will provide instruction in computer technology to a middle or high school class as well as trouble shoot the problem their students encounter.

Itinerary:

(90 minutes) Students will teach their second lesson with their partner classes.

Online Homework:

Students will post a reflection about their second lesson on blackboard or a class wiki.

“The Plot: Briefly describe your unit plan and some of the students' reactions to your instruction. Cite specific examples.” (Cone and Harris, 1990, p. 43).

What have you learned about using computer technology from your students? What kinds of strategies do they use to learn how to use the software and make their digital art? How will this information influence and shape the subsequent lessons you will teach?

Community and Service Learning

Day 21: Reflection

Objectives:

Community:

Students will reflect on how their lesson is serving their community partner.

Art History, Criticism, and Aesthetics:

Students reflect upon the successful and "mistakes in their Art History, Criticism, and Aesthetics instruction.

Art Production:

Students will reflect upon their instruction of a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will reflect upon their computer technology instruction to a middle or high school class.

Students will discuss and find solutions to unresolved technical problems encountered in the classroom.

Itinerary:

(5 minutes) Review the goals of service-learning. Discuss the goals specific to this service-learning project.

(20 minutes) Students will have time to meet in small groups to discuss their teaching experience. Provide an informal reflection question prompt about their second teaching experience with their community partners.

(20 minutes) Have a guided, academic, formal discussion about the first teaching day.

(95 minutes) Allow students time to take a break, conduct further research for their lesson plans, find solutions to technical problems they were unable to resolve in the classroom, and write their formal and informal reflection posts online.

Online:

Students will post a formal reflection about their second lesson on blackboard or a class wiki and respond to two informal reflection posts written by their classmates.

Community and Service Learning

Day 22: Action

Objectives:

Community:

Students will serve their community through a service-learning partnership in which they partner with a middle or high school class to teach a unit on the big idea of Community.

Art History, Criticism, and Aesthetics:

Students instruct their middle and high school students with relation to each of these components as outlined in their lesson plans.

Art Production:

Students will instruct a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will provide instruction in computer technology to a middle or high school class as well as trouble shoot the problem their students encounter.

Itinerary:

(90 minutes) Students will teach their third lesson with their partner classes.

Online:

Students will post a reflection about their third lesson on blackboard or a class wiki.

"The Action: How do you think your presence in the community impacts the person(s) with whom you work? What impact has this assignment had on you? Illustrate your points with experiences you have had this semester." (Cone and Harris, 1990, p. 43).

What are some lessons you have learned twice, first as a student in ARTE250 and then in your new role as a teacher at the partner school? Do you feel competent as an instructor using and teaching computer technology? Has your perception of your ability to teach others to use computer technology changed?

Community and Service Learning

Day 23: Reflection

Objectives:

Community:

Students will reflect on how their lesson is serving their community partner.

Art History, Criticism, and Aesthetics:

Students reflect upon the successful and "mistakes in their Art History, Criticism, and Aesthetics instruction.

Art Production:

Students will reflect upon their instruction of a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will reflect upon their computer technology instruction to a middle or high school class.

Students will discuss and find solutions to unresolved technical problems encountered in the classroom.

Itinerary:

(5 minutes) Review the goals of service-learning. Discuss the goals specific to this service-learning project.

(20 minutes) Students will have time to meet in small groups to discuss their teaching experience. Provide an informal reflection question prompt about their first teaching experience with their community partners.

(20 minutes) Have a guided, academic, formal discussion about the third teaching day.

(95 minutes) Allow students time to take a break, conduct further research for their lesson plans, find solutions to technical problems they were unable to resolve in the classroom, and write their formal and informal reflection posts online.

Online Homework:

Students will post a formal reflection about their third lesson on blackboard or a class wiki and respond to two informal reflection posts written by their classmates.

Community and Service Learning

Day 24: Action

Objectives:

Community:

Students will serve their community through a service-learning partnership in which they partner with a middle or high school class to teach a unit on the big idea of Community.

Art History, Criticism, and Aesthetics:

Students instruct their middle and high school students with relation to each of these components as outlined in their lesson plans.

Art Production:

Students will instruct a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will provide instruction in computer technology to a middle or high school class as well as trouble shoot the problem their students encounter.

Itinerary:

(90 minutes) Students will teach their forth lesson with their partner classes.

Online Homework:

Students will post a reflection about their forth lesson on blackboard or a class wiki.

"The Script: Describe a class session in which you learned something significant. Include parts of conversations and/or discuss a student's artwork. What significance do you attribute to this experience?" (Cone and Harris, 1990, p. 43).

Community and Service Learning

Day 25: Reflection

Objectives:

Community:

Students will reflect on how their lesson is serving their community partner.

Art History, Criticism, and Aesthetics:

Students reflect upon the successful and "mistakes in their Art History, Criticism, and Aesthetics instruction.

Art Production:

Students will reflect upon their instruction of a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will reflect upon their computer technology instruction to a middle or high school class.

Students will discuss and find solutions to unresolved technical problems encountered in the classroom.

Itinerary:

(5 minutes) Review the goals of service-learning. Discuss the goals specific to this service-learning project.

(20 minutes) Students will have time to meet in small groups to discuss their teaching experience. Provide an informal reflection question prompt about their fourth teaching experience with their community partners.

(20 minutes) Have a guided, academic, formal discussion about the first teaching day.

(95 minutes) Allow students time to take a break, conduct further research for their lesson plans, find solutions to technical problems they were unable to resolve in the classroom, and write their formal and informal reflection posts online.

Online:

Students will post a formal reflection about their fourth lesson on blackboard or a class wiki and respond to two informal reflection posts written by their classmates.

Community and Service Learning

Day 26: Action

Objectives:

Community:

Students will serve their community through a service-learning partnership in which they partner with a middle or high school class to teach a unit on the big idea of Community.

Art History, Criticism, and Aesthetics:

Students instruct their middle and high school students with relation to each of these components as outlined in their lesson plans.

Art Production:

Students will instruct a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will provide instruction in computer technology to a middle or high school class as well as trouble shoot the problem their students encounter.

Itinerary:

(90 minutes) Students will teach their fifth lesson with their partner classes.

Online:

Students will post a reflection about their fifth lesson on blackboard or a class wiki.

"Analysis: After being in the community for several weeks now, how have your initial impressions been altered? If they have not changed, describe observations that confirmed your initial impressions" (Cone and Harris, 1990, p. 43).

Community and Service Learning

Day 27: Reflection

Objectives:

Community:

Students will reflect on how their lesson is serving their community partner.

Art History, Criticism, and Aesthetics:

Students reflect upon the successful and "mistakes in their Art History, Criticism, and Aesthetics instruction.

Art Production:

Students will reflect upon their instruction of a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will reflect upon their computer technology instruction to a middle or high school class.

Students will discuss and find solutions to unresolved technical problems encountered in the classroom.

Itinerary:

(5 minutes) Review the goals of service-learning. Discuss the goals specific to this service-learning project.

(20 minutes) Students will have time to meet in small groups to discuss their teaching experience. Provide an informal reflection question prompt about their fifth teaching experience with their community partners.

(20 minutes) Have a guided, academic, formal discussion about the fifth teaching day.

(95 minutes) Allow students time to take a break, conduct further research for their lesson plans, find solutions to technical problems they were unable to resolve in the classroom, and write their formal and informal reflection posts online.

Online:

Students will post a formal reflection about their fifth lesson on blackboard or a class wiki and respond to two informal reflection posts written by their classmates.

Community and Service Learning

Day 28: Demonstration/ Exhibition

Objectives:

Community:

Students will serve their community through a service-learning partnership in which they partner with a middle or high school class to teach a unit on the big idea of Community.

Art History, Criticism, and Aesthetics:

Students instruct their middle and high school students with relation to each of these components as outlined in their lesson plans.

Art Production:

Students will instruct a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will provide instruction in computer technology to a middle or high school class as well as trouble shoot the problem their students encounter.

Itinerary:

(90 minutes) Students will attend the exhibition day at the middle or high school.

Online:

Students will post a short, informal reflection about their service-learning experience on blackboard or a class wiki. Students will post a formal reflection about their first lesson on blackboard or a class wiki and respond to two informal reflection posts written by their classmates. This should be completed before the last day of classes.

Critique: Write a summary of the time you have spent teaching with your service-learning partners. What did you learn? What did your partnership students learn?

Describe some of the reaction of parents and students to seeing the work displayed. Describe your personal reaction to the exhibition. Why is it important to exhibit student work? Should some reflections be posted at the exhibit? Which ones?

Community and Service Learning

Day 29: Reflection/ Demonstration

Objectives:

Community:

Students will reflect on how their lesson is serving their community partner.

Art History, Criticism, and Aesthetics:

Students reflect upon the successful and "mistakes in their Art History, Criticism, and Aesthetics instruction.

Art Production:

Students will reflect upon their instruction of a middle or high school class in the production of art on the computer.

Computer Technology Skills:

Students will reflect upon their computer technology instruction to a middle or high school class.

Students will discuss and find solutions to unresolved technical problems encountered in the classroom.

Itinerary:

(5 minutes) Review the goals of service-learning. Discuss the goals specific to this service-learning project.

(55 minutes) Present the best of the students' online reflection posts framed by academic, teaching, and life lessons learned throughout the service-learning partnership.

(10 minutes) Break.

(30 minutes) Discuss the future of the service-learning partnership. What could have gone better? What should be included or removed from the program? How well did our lessons match the needs of our community partner? How would the experience at a different school have made a difference?

Discuss the willingness of the students to participate in service-learning again, their commitment to teaching, and their self-efficacy related to teaching and teaching computer technology.

(30 minutes) Conduct instructor evaluations. At VCU, university instructors are evaluated to give feedback both to the instructor and give an assessment to the university. These forms are usually completed on the last day of class.

CHAPTER 4

First Person Narrative

In the following chapter, I will explain how I see the curriculum being implemented, unit section by unit section. Then, I will discuss the findings and limitations of the research.

Classroom Community: Day 1

After introductions, I would talk about the goals of the course. Firstly, a class on computer technology for art teachers needs to teach computer skills to art teachers in a way they can understand. Secondly, the art teachers should have some idea of how to continue to learn and to teach themselves about computers and software outside of the course. Perhaps most importantly, pre-service art teachers should finish the course with some idea of how and what to teach to their K-12 students about computer technology.

Next I would explain and define service-learning, which is a symbiotic relationship between learner and community. It is the integration of community service into academic curricula for social justice, civil participation, and experiential learning. Wade (1995) and Root and Furco (2001) implied that teachers could gain self-efficacy in service-learning programs and thus service-learning could help raise pre-service teachers' confidence in their abilities as a teacher and as a computer user. For these reasons, service-learning has been included as a major component of the curriculum. Again, supposing that the pre-service teachers discover that the learning-partner school needs

help with their English literacy skills, the service being provided will be supplemental art and writing instruction to a local school in need of extra help needed passing their SOLs.

I would introduce the students to the Mac computers after an icebreaker. I would explain that TuxPaint is a free, open source program available for easy download and installation for all the major operating systems. The students' first task is to play with and explore the software program TuxPaint.

Afterwards, I would explain how VCU is currently using service-learning and art education for social justice within Richmond. Currently, the secondary practicum students spend several weeks teaching an interdisciplinary art unit encompassing math skills to a city school with failing math SOL scores.

Unit Part 1: Identity and Community

After building the foundations of a solid classroom community and an introduction to the computers and TuxPaint on the first day, I would introduce Photo Booth™ and do a Photoshop® tutorial on the second day. As part of preparation to create a digital collage on the intersections of their personal identity and a chosen community they belong to, the pre-service teachers will begin a Tinderbox mindmap using a provided template based upon Congdon, Stewart, and White's (2002) and then complete an “I am from...” poem. Every student in the class would create a poem revealing bits of their identity specific to a community. The poem's structure includes places, events, objects, and people in a very visual and even fantasy/memory style language that easily lends itself to image-creation if kept short and specific to a single facet of one's past. Beginning

with guided tutorials and completing increasingly independent practice with the software, the students will finish their digital collages and Tinderbox mindmaps. See chapter 3 for lesson plans and the appendix for the mindmaps.

Each student would gain a more complex understanding of their interactions within their various communities from working on their Tinderbox mindmaps. A few students might even discover an overlap in purpose and organization structure between their communities. Most students refine their definition of communities within their mindmap, realize which are the most important to them, and formulate components of their poem and digital collage.

Creating a poem is another textual way to encourage the pre-service teachers to explore their ideas about community and solidify the conceptual basis of their Photoshop® collage. Additionally, the structure of the "I am from..." poem includes listing objects and activities related to the community from which the students can find photos to include in the collage.

The digital collage creation process from then on would become primarily a technical challenge. Integral to learning how to use computer software is learning self instruction. Students would have plenty of time to explore, experiment, and play as this is vital to the learning process in art (Gude, 2007) as well as computer technology (Mayo, 2007). When students have technical questions, I would often refer them to the F1/help function in Photoshop® to answer some of their questions (Mayo, 2007). For students that really struggle, I would encourage them to use the internet to find tutorials (both written and video) as a starting point to learn how to use a program or to answer specific

technical questions. The internet is a very important classroom resource, especially when learning how to use computer technology (Buffington, 2007; Mayo, 2007). The critiques-- formal and informal-- would include comparing and contrasting between the students' identifying communities. Such conversations could get deeply personal. I would emphasize meeting their differences with empathy and understanding.

By the end of the unit section on Identity and Community, the students will have developed a more complex understanding of the communities to which they and their peers belong, how those communities interact, and their own individual identities.

Unit Part 2: Community: Stories of Ritual and Tradition

At first students may be surprised at the mix of comics, children's books, and traditional fine art being used as the locus of this unit. I would spend time explaining the concept of Visual Culture Art Education and its growing trend in art education. The study of popular art forms such as children's books and comics has become a common practice among art teachers (Tavin, 2003). Many students would be surprised by the relationship drawn between fine artworks such as Egyptian hieroglyphics relief and the Bayeux tapestry and contemporary works such as *En Mi Familia* (1996). As pointed out by Scott McCloud (1993), these works of fine art are not usually considered comics. But under his definition, they certainly are.

> **com.ics** (kom'iks) n. plural in form, used with a singular verb. 1. Juxtaposed pictorial and other images in deliberate sequence, intended to convey information and/or to produce an aesthetic response in the viewer (p. 9).

Having read and studied some comics, the students would have a better idea of how images convey a story. Reading and then discussing the various example narrative works would help the students understand the topic of Community: Stories of Ritual and Tradition. I would impress upon them that the point of looking at several very different works of art focused on a single idea is to clarify that concept as well as learn about a variety of artists and techniques. In discussion, I would clarify the definitions of ritual and tradition. A ritual is a detailed procedure faithfully followed, often related to religious ceremony. A tradition is an element of a culture which is passed down from generation to generation, or a time-honored practice, set of customs, or beliefs.

Next, the students would spend some time adding further information to their Tinderbox community mindmap. Having selected a specific community, they would continue adding notes corresponding to common events, rituals, and traditions intrinsic to that community.

The Illustrator® tutorial is fairly intuitive compared to Photoshop®. The students' questions are more poignant than with the Photoshop® tutorials. They begin to recognize similar functions such as Undo, Cut, Copy, Paste, and Filters. I would continue to quiz them on the difference between raster graphics (Photoshop®) and vector graphics (Illustrator®) throughout the first few days of working in Illustrator®.

Some students might have trouble with visual narration techniques, which would be apparent in their hand-drawn quick sketches. If I saw that a student's comic required excessive written or spoken interpretation, I would offer them individual help. The students would read each others' work during in process critiques and offer individual

help then as well. If many students were having trouble making the story apparent in their work, I would opt for a visual narrative exercise. If the students' were relying too heavily on the text to carry the story, ordering pictures of cats to create a story without words would be a good exercise to do. Otherwise, a fill-in-the-comic-frame game about a fairy tale would be a good way to help the students narrow their stories down to an appropriate number of images.

While technical questions about Illustrator® become less frequent, the students would be consulting the Internet, the help function, or a classmate to find solutions. As the first students started finishing the images needed for their comic, I would introduce Comic Life™ software, which aids in comic image layout and adding text bubbles.

While technical questions about Comic Life™ would be few, there would potentially be some debate about the best layouts to use. For example, a student might use the layout that has 4 panels surrounding a central panel. New comic artists sometimes do not realize this layout is intended to be used for 5 simultaneous views of the same event, such as the response of 5 characters to a surprise. During breaks, I would encourage the students to look and discuss at their peers' works with one another and informally critique with the artist to improve the comic's readability.

The critique of the final comics would reveal similarities and differences between the students' communities, identities, and past.

Next, I would introduce InDesign® and give a tutorial. InDesign® is similar to Photoshop® and Illustrator® in terms of interface and is the easiest to learn. After a few

questions of how to make the images fit correctly into the image boxes, the students would transform their comic-style stories into children's book style stories.

As the students finish their layouts, we would discuss the potential for using Photoshop®, Illustrator®, Comic Life™, InDesign® and/or comics with the service-learning partners and how to design lesson plans to incorporate those elements.

In the final critique, the differences and similarities between comics and children's books would be discussed.

Unit Part 3: Community and Service Learning

In the final week of preparation for the service-learning placement, the students would be scurrying to revise their lesson and unit plans, create PowerPoint™ presentations, gather teaching materials, and create example artworks more directly related to their lessons. Before entering the classroom, the students would practice teaching each other, revealing gaps in their planning process. The students would have plenty of time to prepare and practice, but always there are mishaps, mistakes, and unexpected challenges when actually teaching.

For this particular thesis's unit plan to apply, the school would have a need to raise their English literacy SOL scores and have more art practice. Sometimes taking art is an elective in middle school, but in struggling schools, may not even be available. Teaching comics is a good way to integrate visual arts learning and writing practice (Graham, 2008).

The first day in the classroom would be a unique experience for the pre-service teachers. The pre-service teachers would be prepared with their lesson plans and materials, but many of them, used to suburban settings, may experience some culture shock. Later, their initial written reflections may reveal stereotypes (Cone & Harris, 1990). Back on campus, after some classroom discussion of differences, the pre-service teachers may rethink their initial impressions. Additionally, their students may have encountered technical problems that they could not address at the time. The pre-service teachers may seek the answers to their questions by exploring the software on their own, doing an Internet search, or using the help function. If they could not find a satisfactory answer, I would explain and help as best I could. Some pre-service teachers may need to find new lesson materials or change the pace of their lessons.

The service-learning project or "action" and "reflection" components would continue in this fashion for five weeks. Each time, the pre-service teachers would learn more about their students, getting to know their likes and dislikes. They would also learn about the students' communities through discussion and creation of their comics. The better the pre-service teachers get to know their students, the more their preconceived notions would be altered. The pre-service teachers would learn to keep their students interested and involved even when things do not go according to plan. With more time in the classroom, they would start to identify more with their role as a teacher and possibly even view themselves as able, digital-savvy art teachers. Some pre-service teachers might find that their students are teaching them about the computer and helping their classmates learn as well.

On the final day in the partner school, the pre-service teachers would host an exhibition to which all the students, parents, and teachers would be invited. Afterwards, the pre-service teachers would discuss the exhibition, their experiences teaching, how it affected them, and the future of the service-learning project. Some students would ask for more freedom in writing their unit plans and being able to choose a different big idea and/or project. Many students would believe, as I do, that for the first time in a service-learning project and for the first time in the classroom for pre-service teachers, having some boundaries is a good thing and can help them focus on actually learning the software and teaching their lessons.

Findings

A service-learning approach in an arts-based technology course could increase pre-service teacher receptivity to teaching technology by giving them a positive and successful experience. Some of the barriers to teaching technology for pre-service teachers are lack of funds, availability and quality of computer hardware and software, teaching models for using computer technology in instruction, time to learn to use computer technology, and teacher attitude (Rogers, 2000).

Service-learning can contribute to increased receptivity to teaching using computer technology by addressing these needs. A lack of funds for computer hardware and software can be addressed through grant-writing if not through the school's resources directly. A tour of the local school where the service-learning program will take place may illustrate the importance and accessibility to computer technology. The availability

of computer hardware and software may be resolved through discussion with a supportive administration, cooperating with other teachers in the school, and considering open source technology. A service-learning program would provide pre-service teachers with a model for using computer technology in their instruction, both through their own experiences and through the instruction and guidance of the teacher educator. It is up to both the pre-service teachers and the teacher educator to ensure the pre-service teachers have sufficient time to learn the computer technology. Although, if Hutzel's (2007) and Black's (2005) experience is indicative, the students will be teaching the pre-service teachers about the technology if they remain open to partnering with their students. Teachers attitudes can be altered by the kind of service-learning experience they have (Root & Furco, 2001). Certainly, Hutzel (2007) found that pre-service art teachers involved in a service-learning program using computer technology became more comfortable both with the technology and with partnering with their students.

The importance of this research is in the pedagogy and planning. The most important planning aspects include preparation with independent work for the pre-service teachers with the computer technology and curricular planning for the pre-service teachers and the teacher educator. The choice to incorporate big ideas and service-learning into a course on computer technology should be discussed with the pre-service teachers. For an initial service-learning experience, I recommend that the teacher educator provide a unit plan or lesson plan from which to begin planning and teaching. Reflection on the service-learning experience is also an essential component of any service-learning curriculum.

Many researchers have examined the many aspects of “big ideas” pedagogy, service-learning pedagogy, or the inclusion of computer graphics technology in curricula; however, very few have studied the way in which these elements could combine. Hutzel's (2007) initial findings were very promising, as the pre-service teachers became much more comfortable using the computer and working with students.

Limitations

This thesis, being mostly hypothetical in nature, cannot address the adaptations that must take place in a classroom setting. As with any service-learning program, much depends on the success of the partnership. A successful service-learning project directly relates to what the students are learning about in class, thus it may become necessary to alter the unit plan to incorporate the study of a different artwork which more closely relates to the K-12 students' curriculum and interests.

CHAPTER 5

Conclusions

Within this thesis project, I have attempted to answer the following questions: 1) How does a service-learning approach in an arts-based technology course increase pre-service teacher receptivity to teaching technology? 2.) What are some barriers to teaching technology for pre-service teachers? A positive service-learning experience provides good learning models which have the potential to address the barriers to teaching technology for pre-service teachers by influencing their self-efficacy.

While there are many barriers to teaching technology for teachers including lack of funds, availability and quality of computer hardware and software, teaching models for using computer technology in instruction, time to learn to use computer technology, and teacher attitude (Rogers, 2000). A service-learning approach in an arts-based technology course could increase pre-service teacher receptivity to teaching technology by addressing these needs, the most important of which is providing pre-service teachers with a model for using computer technology in their instruction. Within the unit plans that I developed, I partially address the time factor involved in learning by pacing; however, much depends on the teacher educator and how they choose to respond to and guide the pre-service teachers when facing these barriers.

Computer hardware and software availability is a problem which the teacher educator can address through writing a grant for funds, computer hardware and software, introducing the pre-service teachers to free and open source software, and negotiating

with the partner school's administration and classroom teachers. Discussing this process with the pre-service teachers so they may learn from that experience is also important.

The last barrier to pre-service teacher receptivity to computer technology is their attitudes (Rogers, 2000). A successful service-learning experience can influence participants' self-efficacy (Wade, 1995) and develop a pro-social self-schema (Root & Furco, 2001). A positive experience teaching using computer technology has the potential to change pre-service teacher attitude about the ability of a teacher to influence students and their personal ability as a teacher. If Hutzel's (2007) and Black's (2005) experiences were indicative, the students and pre-service teachers will be teaching each other about digital art. Throughout the unit plan, pre-service teachers are given time to reflect on their learning experiences and discuss what they are learning by working with the students.

Horton and Freire (1990) suggested giving content-specific knowledge sparingly and emphasized that the most important portion of an education experience is the process of thinking through the information. Especially when teaching digital art to pre-service teachers, while it is important to give goals, guidelines and some basic instruction to lay the ground work for future discoveries, pre-service teachers and students alike need the opportunity to find the solutions to their own technical and artistic problems. For example, the unit plan provided in this thesis (Chapter 3) provides the overarching big idea of "community," the goal of meeting a specific communal need such as literacy, and a timeline for the pre-service teachers to write lessons plans. The unit plan does not choose which artworks for the pre-service teachers to base their lessons upon nor specify the project or medium.

Contributions

The curricular ideas and unit plans contained within this thesis should serve as idea-generators for teacher educators interested in enriching their computer technology curriculum for pre-service teachers by incorporating service-learning into their practice. The big ideas were chosen to emphasize the idea of a learning community. Students and pre-service teachers develop a relationship over the course of the teaching in which both learn from each other through the pre-service teachers' lessons and how the lessons are interpreted by the students. In effect, these unit plans are only a beginning for future projects which integrate service-learning and the digital arts.

Future Research

This thesis, being mostly hypothetical in nature, cannot address the adaptations that must take place in a classroom setting. The big ideas may be altered to pique the interests of the parties involved, or the projects changed entirely; however, the curriculum in this thesis project may be used as a foundation. Implementing this curriculum in a computer technology class for pre-service art educators and partnering with an area middle or high school in need of some artistic support could reveal much about the potential of arts- and technology-based service-learning projects.

In implementing such a curriculum, surveying the self-efficacy and teacher attitudes of the pre-service teachers could prove to be a valuable indicator of the effect of their involvement in a service-learning program beyond what learning may be inferred

from their reflective writings and discussions. Studies on the effects of service-learning on pre-service teacher self-efficacy have been largely inconclusive; some studies find positive influence while others find no measurable change. Using this unit plan as a guide, further research could be conducted on the effects of service-learning on pre-service teacher self-efficacy. In such a study, a control group could exist in which the students used a similar version of the unit plan and then created an independent project instead of teaching and working with the middle or high school students. Another could be a case study of pre-service teachers where they keep a journal of their reflections and then discuss how they could implement service-learning within their own classrooms. Yet another case study could involve an ethnographic account of the teacher educator's experiences as well as interviews and reflections from the pre-service teachers and the students.

This research was based on mostly hypothetical situations; however, the use of digital arts and service-learning within a classroom suggests a need for further research to occur. As computer technology evolves, the use of it beyond the classroom becomes a necessary tool in our everyday lives. In addition, the act of providing service should be implemented within the classroom. By integrating service-learning and digital arts within pre-service teacher curricula, this research only begins to open up possibilities for the development of learning that engages students and helps pre-service teachers develop art classrooms that are advanced in technology and emphasize providing service as a way to learn.

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APPENDIX A

Tinderbox Mindmaps

This template would be used for the Tinderbox mindmap assignment mentioned on Day 2 in the unit plan and is based upon Congdon, Stewart, and White's (2002) template.

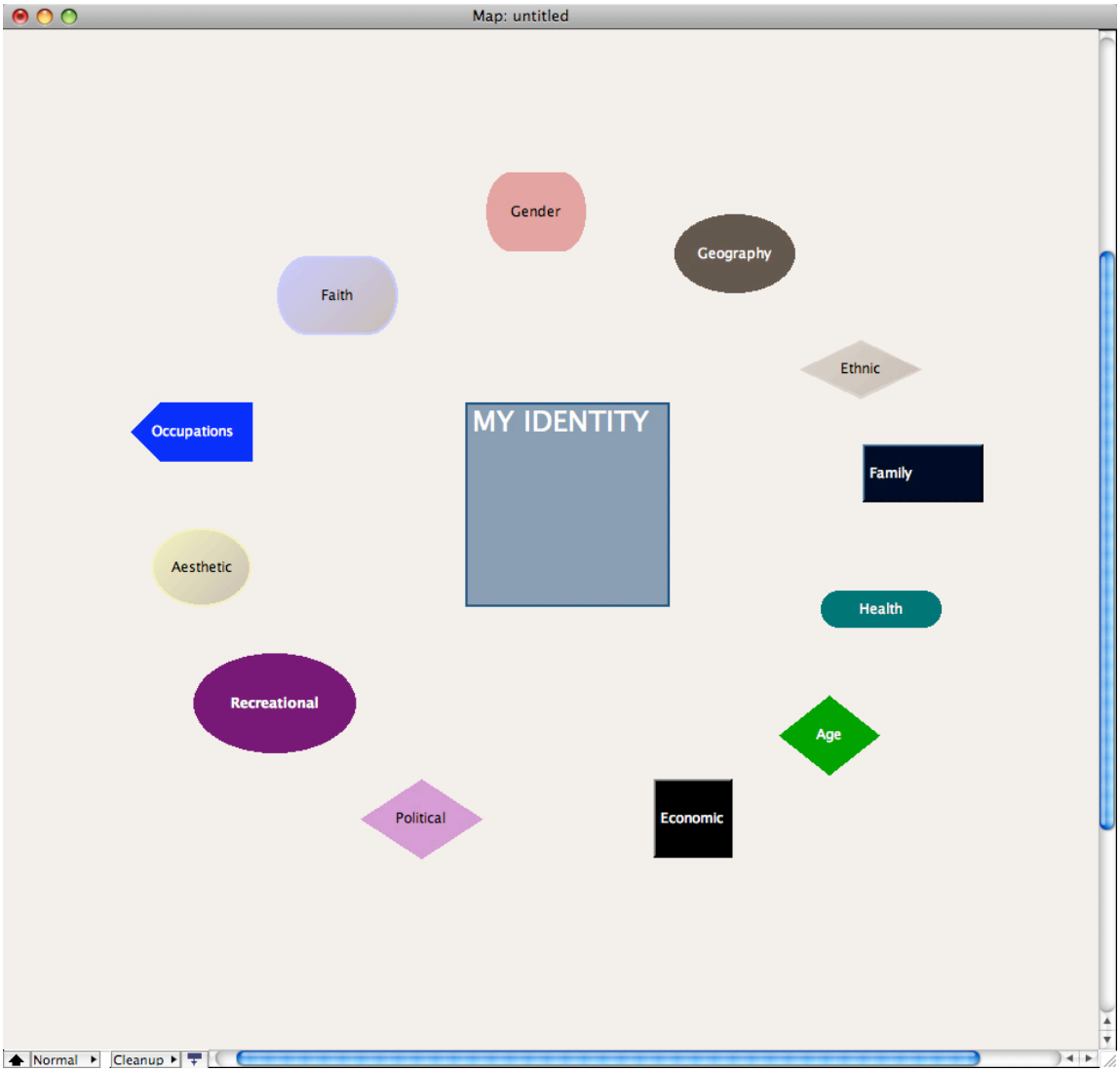

Figure 1: Identity Mindmap Template

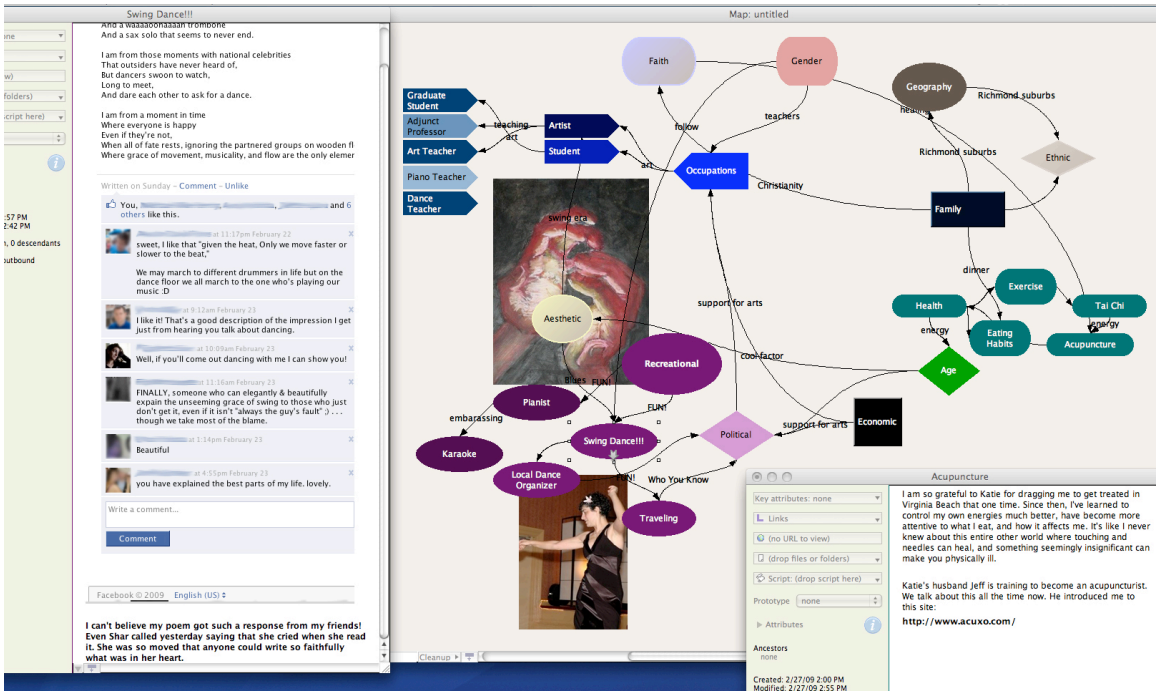

Figure 2: My Identity Mindmap

VITA

I was born in Raleigh, North Carolina, November 10, 1981 and am a citizen of the United States. I have lived in Richmond, Virginia since I was three years old. In the spring of 2004, I was graduated from Virginia Tech with a Bachelor of Fine Arts in studio art with an emphasis on painting. I entered the graduate Art Education program at Virginia Commonwealth University in the fall of 2005. I received the Allen Lewis Scholarship fund for student teachers in the fall of 2008 and was an adjunct teacher for the Department of Art Education from fall 2006 through spring 2008. I have co-presented "Comics, Manga, and Graphic Novels: Big Ideas in the Art Room" at national, regional and local art education association conventions. I am self-employed as a private piano teacher and teach swing dancing at the Dance Space studio, VCU's swing dance club, and other venues in Virginia.