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Participatory Action Research Using Critical Pedagogy to Study Environmental Consciousness in a High School Art Classroom

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Participatory Action Research Using Critical Pedagogy to Study Environmental Consciousness in a High School Art Classroom

by

Jennifer L. Licata

Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Education

December 2011

Approved by:       Date:

_________________________________________  ____________________

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Project Advisor
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I dedicate this Master’s Project to all that find inspiration within its pages.
Abstract

This qualitative participatory action research study explored the question, “How might the introduction of a campaign to raise environmental consciousness in a high school art classroom impact art students and their artworks, other students in the school, and the local community?” This study was conducted in an all female catholic high school. One Studio in Art One class and one Studio in Advanced Digital Media class comprised of 15 students in grades 9-12 participated in the study. The data was collected and analyzed over a period of eight weeks. Guided by the lens of critical pedagogy, my focus was primarily on why students were not practicing eco-conscious behaviors, and what it would take for them to change their habits. I collected data through field notes, questionnaires, and analysis of artwork. I repeatedly read through this data searching for themes. The data was then color-coded and grouped. After a process of narrowing down the groups, five categories emerged: 1) Preconceived Notions and How They Changed, 2) Student Response to Eco-Consciousness, 3) Effect on Community, 4) Teacher Reflections, and 5) Willingness to Commit to Green Practices.

My findings illustrate the preconceived notions that were holding students back, what students needed to commit to green habits, and what classroom practices would help them learn more about the environment. My findings support the benefits of employing a participatory action research paradigm in a high school art classroom. They showed that students were willing to work towards change with a little extra push, that the preconceived notions of students could change with increased knowledge, that a community could be positively affected by a campaign to go green, and that I, as the teacher could create change through this research project.
Chapter I: Introduction

Narrative

I became a teacher for many reasons. As I went through college and worked a few part time jobs, I realized I had a connection with young people. I was able to listen to them, understand them, and most importantly, care about them. I also became an art teacher specifically because of my own love for art and the need to be an arts advocate. But my biggest reason for choosing a career in education was because of my belief that teachers really do make a difference and have an impact on their students’ lives. The average adult can remember his or her teachers all the way back to preschool. Teachers, good or bad, play a large part in shaping the lives of their students and the beliefs that they develop as they become adults. I wanted the chance to be able to impact students positively as many of my favorite teachers did for me.

As a teacher at an all-girl high school, I hear my students discuss many topics on a daily basis. They might complain about how much homework they have that night, what is on the lunch menu that day, or who texted them what and why. I seldom hear discussions of what they can do to be more environmentally conscious. However, through three years of observing students in my own art classroom, I became increasingly concerned for the amount of waste that they produced on a daily basis. I often watched them lackadaisically discard various materials that could have been either recycled or reused in some way and not think twice about it. The problem intrigued me and I often wondered whether the cause was a lack of caring or a lack of understanding of repercussions. As a result, I believe environmental consciousness is an important curricular topic for us to explore in art. Teachers have the responsibility, especially in the
current state of our environment, to inform our students and promote positive change. For this reason, I tackled issues of the environment in my own art room. My research project documents this endeavor.

Artists have a long history of promoting change in the world. Artists including the Dadaists, Pop Artists, and the Guerrilla Girls have addressed topics such as war, feminism, mass media, and consumerism.

The question of whether or not art will ever change the world is not a relevant question anymore: The world is changing already, in inescapable ways. We can no longer deny the evidence at hand. The issue is whether art will rise to the occasion and make itself useful to all that is going on. (Gablik, 1993)

Gablik is suggesting that art educators can promote change in the world through the integration of environmental consciousness in art education.

Regardless of the constant vocal reminders and countless “Go Green!” signs that decorate our schools walls, I have watched students throw paper in the garbage can when the recycle bin is inches away, discard piles of paint because they took too much, and press print on the computer fifteen times because they did not have the patience to wait for the first one to come out. The evidence of waste gets worse in the dining hall. Students throw cans and plastic bottles in the garbage can because the recycle bin was not convenient enough. I have even seen students discard whole meals. Perhaps if students could truly realize the repercussions of their actions, they would be willing to change. According to Krause (2003), if people can actually see or feel a threatening situation, their reactions are likely to be more pronounced. "Despite the advances in technical knowledge about environmental problems, the assaults on the earth and its physical
components have not come to any dramatic end” (Krause, 1993, p. 126). My hope was that by teaching how to be green and modeling green practices instead of just saying it, the ideas would click and students would have a full understanding of what it means to be environmentally responsible.

As a full-time teacher at my school, I teach about 100 students in four different courses including: Art One, Art History, Digital Photography, and Advanced Digital Media. In teaching traditional studio classes, photography, and media classes, I see waste that involves not only paper and paint, but also printer ink, and excessive energy consumption from our varied equipment. My classroom alone has 6 computers, 4 scanners, 3 printers, 10 digital cameras, and 6 video cameras, with a variety of power cords and power strips into which these items are plugged. As I left at the end of each day, I felt a sense of guilt for the energy that would be consumed overnight. I wished I could shut everything down each afternoon, but our school’s technology department runs automatic updates nightly, and the machines need to be powered up in order for them to work properly, even over the weekends. I am often concerned for how much waste the entire school produces nightly, and I feel a personal responsibility as a teacher in this setting.

Human nature, even as adults, is that we sometimes need a straight, “Do this, not that” type of direction. For high school students, this need is amplified. For example, a sign that hangs in every classroom in my school that says “Think Globally. Act Locally. Stewardship of the Earth Starts at Our School.” These slogans are great reminders, but we cannot just hang them up and leave it at that. “Educators must offer children the opportunity to celebrate the wonder, awe, and beauty of the earth through aesthetic
experiences” and provide children with an "opportunity to bond with the natural world, to learn to love it, before being asked to heal its wounds" (Im Kang Song, 2010). As teachers, we can help our students build a sense of stewardship of the earth, which involves forming trajectories that help shape humans relationship to the earth. It may not be enough to hope it works itself out.

**The Environment and Critical Pedagogy**

Due to varying teaching philosophies, some teachers may not see the space or reason for including important issues like the environment in their curricula. Those teachers who have adopted a philosophy steeped in critical pedagogy include cultural social issues for the benefit of their students.

Through the lens of critical pedagogy, the introduction of environmental consciousness to a high school art curriculum can inform and empower students to take action (Giroux, 1989; Groenke, 2009; Monchinski, 2008). “Critical pedagogies are needed to challenge the assumptions, practices, and outcomes taken for granted in dominant culture and in conventional education” (Gruenewald, 2008). As educators, we need to take a serious look at what important things we are not including in our curriculum and be sure that we are supplying students with what they need in school to be successful, well-versed, and intelligent members of society. As Graham (2007) noted, “The intersection of mainstream educational purposes and taken-for-granted practices among art educators leaves vital matters of ecology largely unexamined. Such omission neglects the potential of art to educate and encourage active engagement with ecological concerns.” Art has great potential to cause change (Graham, 2007) and teachers can take full advantage of that in their classrooms. Many educators have outside influences from
administration and pre-determined school curricula that steer them away from teaching about issues like ecology. By examining how standards and curricula can be implemented through a critical lens, teachers can determine issues to include in their curriculum that lead to educated citizenship, which includes ecological consciousness. Gaps in critical curricula exist that need to be filled in order to supply students with the most critically aware education possible.

Although my school does not have the resources to take large steps, I have implemented numerous small things in an attempt to run a green classroom, which have begun to make an impact. I have recycle bins for everything including paper, plastic, metal, and glass. I take items that the school will not recycle home with me to take care of myself. I keep the lights off as often as possible, always when the room is not in use. All homework can be uploaded to me through websites like Googledocs, Flickr.com, Tumblr.com, and Edline.net. The effort may be minimal, but I felt a moral obligation to try. “It will go a long way in saving power if everyone decides to switch off idle electronic gadgets like TVs, microwave ovens, DVD, and CD players that are not being used” (all-recycling-facts.com). Everything we can do counts; and as we are reminded daily in visual culture through billboards and commercials, the consequences of neglecting even the little things can be enormous.

Going green is a hot topic in our world. We see constant reminders on television and especially on the Internet to be more “environmentally friendly.” Many schools are taking steps to reduce their carbon footprint and encouraging students and teachers to do the same (Schachter, 2009). Educational institutions use green techniques and materials, and others are taking simpler steps like switching to motion activated faucets and soap
dispensers, and toilets that use less water. Teachers are also beginning to bring issues of the environment into their individual classrooms. The following statistics, retrieved from all-recycling-facts.com, prove the power of taking small steps toward environmental consciousness.

- Recycling 14 trees worth of paper reduces air pollutants by 165,142 tons.
- The average time taken for plastic bottles to decompose in a landfill is close to 700 years.
- The United States is one of world’s largest producers of trash. Trash is produced at an alarming rate of 1,609 pounds of trash per person per year.
- One of the most effective ways of saving energy is by using compact fluorescent light bulbs or CFL bulbs because they generate the same intensity of light but consume three times less power when compared to regular bulbs.

These simple things that we can do at school, at work, and at home have the potential for positive impact on the environment.

In exploring literature to date, it seems that environmentalism is an often-neglected area in art education. I felt that my students were environmentally aware, but I wanted to help them to be environmentally conscious. The difference is that environmental consciousness comes from learning, doing, and most importantly, fully understanding what stewardship of the planet really means. To be environmentally aware is simpler because one may know that it is beneficial to live green, but it does not mean that most people actually do it. Environmental themed art can have an important place in the art curriculum (Gablik, 1991; Krug, 2003; Nerperud, 1997). Many art educators may want to integrate environmentalism into their curricula but do not know where to start.
What are needed now are contemporary examples that art educators and their students can look to as they formulate ecologically restorative projects. Of particular importance will be examples that model a critical pedagogy, which is teaching that encourages students to critically analyze contemporary issues and subsequently to act on their convictions. (Blandy, Congdon, & Krug, 1998)

Staying well informed is of utmost importance in order to be able to properly integrate and teach critical citizenship. Teachers have a responsibility to do the research and regularly inform ourselves of contemporary art education practices that include developing environmental consciousness. I knew that my students moved from environmentally aware to environmentally conscious when I saw distinct positive changes in their actions. I observed and documented students’ practices in a classroom journal as they went through the learning process. We never know if we reach every student and how important our lessons have been to their future. But in the end, can teachers really settle with not bothering to try?

**Problem Statement**

The problem this research addressed is that I saw a lack of environmental consciousness in my high school students, our school, and our local community. Additionally, there was a deficiency of specific suggestions for how an art educator might actually integrate environmental consciousness into the art curriculum. Media hype makes it nearly impossible to not know the meaning of environmental friendliness and why it is beneficial to society. By introducing an in-depth study into the high school art curriculum, I investigated how a campaign grounded in environmental awareness could impact art students, our school, and also our local community.
Cultural consciousness, the lens through which we view and interpret our world (davidkorten.org), was another goal of this study. Increased cultural consciousness can aid students’ environmental consciousness. We are situated in a small city neighborhood where most people know each other; they live and work in the area. I live less than three blocks from the school, as do most of the teachers and students. For this reason, I felt that we could easily extend our impact beyond the school and into the neighborhood by raising awareness and modeling ecological preservation.

**Purpose of the Study**

The purpose of the study was to build an art curriculum and space to fill the gap that existed between telling students to be environmentally aware and teaching them to be critical examiners of their environment. I wanted to move my art students, our school, and our local community to be these critical examiners who became more environmentally aware and environmentally conscious citizens through a campaign to develop environmental awareness and consciousness through critical citizenship.

“Citizenship invokes a notion of the social in which individuals have duties and responsibilities to others” (henryagiroux.com). Good citizenship includes environmental consciousness regarding concerns for environmental conservation, improvement of the state of the environment, and taking action to create positive change in stewardship of the earth in the school, community, and the world.

**Research Questions**

Given the problem and the purpose of this study, my research questions were as follows:
♦ **Central:** How might the introduction of a campaign to raise environmental consciousness in a high school art classroom impact art students and their artworks, other students in the school, and the local community?

- What are some preconceived notions and opinions that the students hold about the environment and culture?
- How might these preconceived notions and opinions change with this campaign?
- What kind of curriculum, strategies, and activities might be used to help students move toward environmental consciousness?
- What can I, as the teacher, learn from researching and teaching about the environment in my art classes?

**Significance of Study**

The significance of this study was to expand research in the field of environmental consciousness and art. Although this idea has been often covered (Neperud, 1997; Ulbricht, 1998; Krug, 2003), much of the literature has neglected to cover specific suggestions for how to introduce stewardship of the earth into the art curriculum. Specific examples and ideas would be helpful to teachers to have to build upon. Although research encourages educators to make their lessons meaningful and relevant to the lives of their students (Gaudelius & Speirs, 2002; Gablik, 1993), doing so may be a difficult task, especially if teachers are unable to engage students in specific lessons that cover these topics because students may possess a lack of interest or understanding.
This research aided students with the development of stewardship of the earth and how it is affected by our everyday practices. "The interactive nature of consciousness, language, and metaphor asserts that environment, behavior, values, technology, and culture all influence the way we understand and experience ourselves and vice versa" (Pritzker, 2003, p. 14). In other words, producing well-rounded students will come from teaching and modeling responsibility in many areas, not just the environment. In addition, the research also aided educators who are looking to implement environmentally friendly practices in their classrooms and curricula but struggle to do so. Also important to my study was to find out why and how students are apathetic toward or reject initiatives, and whether or to what extent their preconceived notions are culturally constructed. "The structuring of consciousness, language, and metaphor is a process entailing the interaction of environment and body, self and other" (Pritzker, 2003, p. 14).

This means that there are many elements that aid in the development of a critical consciousness and according to Giroux (1988), there exists a need for a cultural critique of media, advertising, and the push of capitalism toward rampant consumerism. Finally, this study could also benefit school districts and administrators because it may help them formulate ideas to promote green practices in their own schools. Practices such as these are important in our world today as we are encouraged to live greener in all aspects of our lives.

**Definitions of Terms**

The following terms were referenced in my research and used with students in my classroom. For the purpose of this study, the terms were defined and understood as listed here.
♦ Stewardship of the Earth – Sustaining and enhancing Earth’s life-support systems (esa.org). Earth stewardship involves shaping trajectories of social-ecological change at local-to-global scales to enhance ecosystem resilience and human well-being (esa.org).

♦ Environmental Awareness – Advocacy for or education about protecting the natural environment from destruction or pollution (answers.com). According to Krug (2006), environmental awareness has increased about toxic wastes, forest depletion, water and air pollution, animal and plant extinction, and a multitude of other environmental crises that affect various corners of the world. In regards to my study, environmental awareness is defined as already having the knowledge that it is beneficial to do what we can to sustain our environment, and the knowledge of repercussions that can come from not being environmentally friendly.

♦ Environmental Consciousness – The growth and development of awareness, understanding, and consciousness toward the biophysical environment and its problems, including human interactions and effects (eionet.eu). In regards to my study, environmental consciousness is defined as fully comprehending how to sustain our environment and putting these practices into action.

♦ Environmentalism – A social movement regarding concerns for environmental conservation and improvement of the state of the environment (google.com/search); is a movement to preserve the health of the earth and its ecosystems. While it is based in science, it's also inspired by values and spirituality (suite101.com)
♦ Environmental Art – Art that focuses on human interaction with the environment in areas such as pollution and land use (artsconnected.org)

According to artist Lynne Hull (2010), much environmental art is ephemeral (made to disappear or transform), designed for a particular place (and can't be moved) or involves collaborations between artists and others, such as scientists, educators or community groups (distributed ownership) (greenmuseum.org). In regards to my study, environmental art will be used as ideas for content for our own projects and to inform us of environmental issues that have been expressed through art.

♦ Ecology – The scientific study of interactions of living organisms with one another and with the physical and chemical environment (wordnetweb.edu); a branch of science concerned with the interrelationship of organisms and their environments (greenmuseum.org). In regards to my study, ecology is defined as the relationship among humans and other organisms within the physical environment.

♦ Eco-art – A contemporary form of environmental art created by artists who are concerned about local and global environmental situations, and who take art making to a functional format (greenmuseum.org).

**Limitations of Study**

Limitations to this research project included a limited time to collect data given the confines of the project within a college semester and the scope of the research based on one classroom in one private school setting. I struggled for time to fit such an information rich curriculum in the small window of one semester.
Conclusion

My perceptions of the lack of environmental consciousness in students in our school led me to find ways to help students work toward environmental consciousness and develop critical citizenship. "How individuals feel about environmentalism and how willing they are to make adjustments in their life-styles will affect the nature and quality of American life for generations to come" (Krause, 1993, p. 129). Our responsibility as teachers, especially in the current state of our environment, is to help inform our students so they become those stewards of the earth who can promote positive change. Although stewardship of the earth is encouraged in many schools, it is a difficult concept to apply for both educators and students without sufficient knowledge and research. Inspired by the research of others, I conducted my own research with high school art students and documented my efforts to introduce an art curriculum that sought to identify and break down such barriers that prohibited citizens from becoming stewards of the earth. My research project documents the process and outcomes of this journey toward creative cultural consciousness.

In the following chapter, I provide an overview of research that lays the foundation for exploring the relationship of environmental consciousness with a teaching philosophy steeped in critical pedagogy. I will also explore the role of schools, art education, and art as they apply to a curriculum focused on promoting stewardship of the earth.
Chapter II: Review of Literature

Introduction

My reason for this research was to explore the impact of introducing a study to increase environmental awareness to the art room. I questioned why it was important for art educators to view their teaching and curriculum through a critical lens in order to improve the world around them. My study focused on how addressing contemporary social issues in art classes, such as the environment, can impact students and their communities. As background for the study, I also examined how schools in general are implementing green practices to move towards becoming environmentally conscious institutions. Finally, a large part of the curriculum for my study was built on examining environmental art and the work of eco artists and their work to see what is being done in the contemporary art world. I also discovered how I could successfully apply contemporary green ideas in my classroom. My study was supported by a review of literature from various experts in the field including art educators, theorists, scientists, and artists.

Critical Pedagogy

One important aspect of the practice of critical pedagogy is that it focuses on social issues and the concept of community in the classroom. As Kellner (2000) noted, “Critical pedagogy considers how education can provide individuals with the tools to better themselves and strengthen democracy, to create a more egalitarian and just society, and thus to deploy education in a process of progressive social change” (p. 197). Simply put, the aim of critical pedagogy is to develop students’ critical thinking skills to be able to examine their lives and the world in order to form their own beliefs. I chose to teach about the environment in my high school art curriculum through the lens of critical
pedagogy because I would like students to leave my class with the knowledge and abilities that can impact their future lives. Since students spend nearly eight hours in school each day, schools help to shape students core beliefs. The practices and ideologies schools promote can in turn help form the beliefs of students (Krug, 2003). Critical pedagogy studies the role that schools play in maintaining the social stratification of society, and the possibilities for social change through the schools (21stcenturyschools.com). The successful application of critical pedagogy starts with teachers.

Most people might agree that good teachers are open to change; they question and critique. They reflect on their lessons and curricula and decide whether or not they need improvement. “When we don’t question the status quo – whether our questioning is to criticize or bolster it – we are tacitly endorsing it” (Monchinski, 2008). Successful teachers are practicing critical pedagogy because they feel an obligation to ask questions and make changes for the good of their students (Monchinski, 2008). Some of the defining characteristics of critical pedagogy include raising consciousness, critique of society, valuing students’ voices, and honoring students’ needs, values, and individuality (21stcenturyschools.com). In critical pedagogy, teachers respect students and build their curricula on what students need to know to become critical citizens.

Grounded in the ideas of Paolo Freire’s liberatory pedagogy (Freire, 1970), critical pedagogy is an educational theory aimed at making students aware and able to gain the power to take action through knowledge gained in school and the world outside school. According to Freire (1970), teachers need to trust in and respect students and be willing to learn from them. “Through dialogue, the teacher-of-the-students and the
students-of-the-teacher cease to exist and a new term emerges: teacher-student with students-teachers” (Freire, 1970). Teachers need to acknowledge that they are not the source of all knowledge and encourage a democratic classroom where open discussion is important (Freire, 1970). Student opinions might change as a result. As described by Freire (1970), this type of classroom involves dialogue and questioning of the norms to get answers.

In problem-posing education, people develop their power to perceive critically the way they exist in the world with which and in which they find themselves; they come to see the world not as a static reality, but as a reality in process, in transformation. (Freire, 1970, p. 83)

In other words, critical pedagogy encourages students and teachers to examine the causes of their reality, problem solve and think critically to work toward change instead of just accepting things as presented. The core goals of critical pedagogy resonate in my curriculum focused on the environment because my goal was for students to recognize problems, discover why they exist, and create solutions. Teachers and students both play an important part in a classroom that practices critical pedagogy.

Teachers may find it difficult to move from a system of depositing information into their students (Freire, 1970) to a more democratic style classroom. In the process of trying to make this change, teachers may encounter resistance from administration who disagree, or even from students (Monchinski, 2008). It seems to me, when a teacher deviates from the norm, students are cautious and question it. Students might resist engagement, involvement, and critical thinking, which are interesting because we might make the assumption that they would look forward to a change (Monchinski, 2008). In
my own experience, many students would prefer to find an inconspicuous seat in the back of the room and passively daydream through a lecture. “A ‘culture of silence’ may descend upon a classroom of passive students who have had it drummed into their heads that teachers are the source of all knowledge in the classroom” (Monchinski, 2008, p. 121). Students may get so used to having information fed to them that it could take time to get used to anything else (Monchinski, 2008). In critical pedagogy, teachers try to push themselves and students toward cultural critique that may indicate necessary change for the good of the community and world (Monchinski, 2008).

Henry Giroux is an important figure in the theory of critical pedagogy who said, “Critical pedagogy offers the best, perhaps the only, chance for young people to develop and assert a sense of their rights and responsibilities to participate in governing, and not simply to be governed” (Giroux, 2010, p. B16). Giroux is saying that teaching our students through the lens of critical pedagogy may be their only chance to develop their own voice as they emulate democracy. As teachers, we may not know everything about the lives of each student. Not everyone has strong role models like parents to teach them to be a confident and motivated person. We do not know circumstances to which students go home every afternoon after leaving school, whether they had a meal before bed, or whether or not they were safe. For the most part, we know what they choose to share with us and what happens in the hours they are in our care each day. For this reason, teachers need to take advantage of those hours and teach important and relevant issues regarding the past, the present, and the possibilities for the future. In relation to this, Henry Giroux states:
Critical pedagogy also insists that one of the fundamental tasks of educators is to make sure that the future points the way to a more socially just world, a world in which critique and possibility are taught in conjunction with the values of reason, freedom, and equality to alter the grounds upon which life is lived. (Giroux, 2010, p. B15)

Students need to know that the possibility for change exists and they deserve our best work and full attention every day. If teachers do not set an example and make their own attempt to stand for something important, no matter how small, we can never expect students to believe that they can make change in the world, which cannot take place without a teacher and educational belief system that supports it.

Social Issues

A defining characteristic of critical pedagogy is the engagement and active participation of students. Getting our students actively involved in the classroom is a task necessary to take on in order to change our teaching styles and classroom structure. One way of getting students interested and involved is by integrating social issues relevant to their lives. Professor of art education Mary Wyrick (2002) stated the study of current news sources provides a starting point for the debate and discussion of socially relevant issues and themes in the classroom. Such discussion shows that the classroom is not an isolated site, but is part of a local and global community (Wyrick, 2002). Many contemporary artists take on social issues such as the environment, war, or women’s rights (Wyrick, 2002). Darts (2006) recalls his own recognition for integrating social issues into his art classroom saying, “I wanted my students to better understand the social power of art and to begin challenging disenfranchised notions of the social and political
roles of artists in contemporary society” (p. 7). The results of Dart’s (2006) integration were positive:

Connecting curriculum to the lives of students through art education is a natural fit – proponents of visual culture approaches to art education explain the production, evaluation, and distribution of cultural artifacts, and social meaning continues to be a vital component of our increasingly visual world today. (p. 11)

In other words, Darts felt that the art classroom is a natural place to discuss social issues because of our world’s reliance on visual culture.

Within a critical pedagogy, the integration of relevant social issues provides an investment in the futures of students, and teachers can teach students to critically reflect on these issues. “To help students discover the power of the arts, teachers can use a theory of critical pedagogy that encourages reflective self-examination of attitudes, values, and beliefs within historical and cultural critique” (Hayes-Yokley, 1999). In my own curriculum, I included issues of the environment for the purpose of making change (Krug, 2003). Together, we reflected on our preconceptions, attitudes, and practices. With this information, we developed a plan of action to change and spread the word to others.

Krug (2003) describes his experience as both a student and an educator that led him to his belief in curriculum integration with life-centered issues. He explains an experience as an undergraduate in college when he was standing in front of an abstract expressionist painting waiting to have a “moving artistic experience” he had been reading about in books. Instead of this experience, he began to make connections between his own everyday situations and the painting. The important part that he points out is that
just because he experienced the artwork differently than most others, he had no less of a
positive experience and still enjoyed the painting as much as everyone else. As an art
educator, this story struck me because sometimes we show students artwork expecting
them to have certain thoughts, probably like the ones we had when we first saw it.
Perhaps it would be more appropriate for us to discuss the relevancy of artwork at present
(Krug, 2003). Krug (2003) wrote, “As an art teacher for over twenty years in grades K-
16, I believe that the arts represent processes and forms of inquiry, knowing, and
participating in the world through affective, perceptual, kinesthetic, and cognitive
experiences” (p. 181). These types of experiences are possible in the art room, especially
with a topic like the environment. According to Krug (2003), raising life-centered issues
that perplex or confuse our students is a way of getting them to think critically. Students
need opportunities to negotiate and reflect on everyday issues through classroom inquiry,
lesson could involve all of these and would yield a democratic, communicative
classroom. With teachers as facilitators, we can direct our students to negotiate in those
unknown places as they greet the challenge of change.

Community

Students may not have had many opportunities to be involved in the community.
According to Lawton (2010), community may be defined as a body of people coming
together for the benefit of the group as a whole. Since a big part of critical pedagogy is
student involvement, my research extended into the local community through school
events. “The act of exchange among participants in a community can be empowering as
voices are heard and valued as equally important” (Lawton, 2010). By making the rest of
the community aware of our efforts in increasing environmental awareness, my hope was to get people thinking and reflecting like the students. It was my hope that if students saw they could make a small difference in their own community, they would feel empowered to work even harder to spread their message. As Lawton (2010) noted, 

Through community outreach students may become empowered and more socially and politically aware. They learn to look outward, beyond their life as members of a family and students in a school to life as citizens of a community and a world in which their voice and actions may be both personally and socially transformative. (p. 7)

Students need to realize that their actions have an impact on more than just themselves. Without a strong community with involved people, businesses fail, families move away, and schools close. Without involvement from its members, a community cannot survive. According to Marche (1998), community can refer to a collection of individuals like teachers, students, and administrators, or the local environment that exists outside the classroom. I refer to both types of community as discussed by Marche (1998). “We must create a community of learners who feel personally connected in caring, supportive, stable relationships, engaged in and committed to everyone’s growth and constructive learning through a challenging curriculum of significant inquiry” (Marche, 1998, p. 7). In encouraging this type of involvement between students and their community, I hoped to support that connection.

Marche (1998) discusses three important aspects of integrating the community in education – taking from, learning about, and acting upon the local community and environment. Marche described the “taking from” aspect as having to do with stepping
outside of classrooms and experiencing things in the real world. Community involvement can be modeled within the school (Marche, 1998). The second aspect, according to Marche (1998), is “learning about” and broadening the idea of the arts to include a variety of art forms like crafts and applied arts. The third aspect, “acting upon,” involves exploring the natural environment of the community. Such endeavors would extend the classroom outdoors. Examples include sketching outside, or taking a photography class outdoors for a photo shoot to connect students with the natural world in their own community. Activities like those mentioned above are simple ways of getting students outdoors and active in the community and environment.

This section has discussed the aspects of critical pedagogy in practice, specifically in the art room. It has also covered how the integration of societal issues relates to the practice of critical pedagogy. Authors pointed out, when discussing issues of society, teachers may also find it appropriate to integrate the concept of community to connect students to their local surroundings and promote involvement. This section also covered the possibility of an art curriculum that focuses on environmental concerns that move from the classroom to the community. The environment is currently a topic of growing interest, and many schools are attempting to become environmentally conscious.

Environmental Consciousness and the Role of Schools

In response to the green initiative all over the world, many schools are attempting to “go green.” Schools with available money and resources are going as far as rebuilding with the help of sustainable builders and contractors (Schachter, 2009). New green technologies like better heating and cooling including water and electricity saving devices, which are comparable in cost to non-green technologies, have been a
contributing factor to the movement (Schachter, 2009). ‘For many schools, ‘going green’ once meant turning out the lights after leaving the classroom, filling the recycle bins, and celebrating Earth Day’ (Schachter, 2009). Schachter (2009) explains that things have changed: “On top of the aforementioned more traditional green practices, schools have gone further in light of high energy prices, global warming, and concerns for the health of students” (p. 29). A possible cause for this change could be that the amount of advertising for the damage we are causing the Earth has instilled a fear in people (Schachter, 2009). In addition, many celebrities like Barack Obama and Al Gore are huge proponents of going green. “In February, President Obama signed into law an economic recovery package that will help refurbish schools” (Licitra, 2009, p.11). According to Licitra (2009), the money could not come at a better time as districts nationwide are readying projects to build new schools or make repairs that will save energy and promote learning.

According to Licitra (2009), characteristics of green schools include both the building itself and the maintenance. In green schools, classroom ceilings slope to disperse light more efficiently and slats on the windows adjust automatically for maximum light. Licitra (2009) continues by saying that the building materials used were likely made from recycled or renewable products. Other physical characteristics include green roofs or water-efficient landscapes, which mean plants are grown there, emitting oxygen while absorbing water and light, or reservoirs that capture rainwater to use in toilets and irrigate playing fields. In addition, no harsh chemicals would be used as cleaning products, but rather certified green cleaners with reusable cloths instead of paper towels (Licitra, 2009). According to Licitra (2009), modeling green behavior is
important for schools to set a good example for the students who go there. The steps that can be taken, either large or small, are within reach for schools.

In *Going Green: Eco-friendly Schools*, Whelan (2007) states, “Why is eco-friendly design one of the hottest trends in K-12 education? Because the environmental, academic, financial, and health benefits are impossible to ignore….If all new school construction and renovations starting today were designed green, energy savings alone would total $20 billion over the next 10 years” (p. 45). Whelan (2007) also points out that going green has health benefits as schools replace things like lead paint, or asbestos. These changes affect both teachers and students.

It also makes perfect sense that eco-friendly schools affect absenteeism, teacher-retention rates, and health-care costs. One half of our nation’s 115,000 schools have problems linked to poor indoor air quality, says *Global Green*, and since students and teachers spend most of their time indoors, more asthma attacks and respiratory infections mean more sick days. (Whelan, 2007)

Green schools are setting examples both for future schools, and existing schools readying to make change.

Going green is especially important in schools because teachers are one of the first lines of defense we have (planetgreen.com). We have the upcoming generation with us for only a short time before they leave with the lessons we have provided and become adults. With the planet in such a crisis at present, this generation will decide its fate (planetgreen.com).

There can be few more pressing and critical goals for the future of humankind than to ensure steady improvement in the quality of life for this and future
generations, in a way that respects our common heritage—the planet we live on. Education for sustainable development is a life-wide and lifelong endeavor, which challenges individuals, institutions and societies to view tomorrow as a day that belongs to all of us, or it will not belong to anyone. (Tarr, 2008)

While we may not be able to implement a school-wide recycling or composting program, we still take it upon ourselves to teach the principles of reducing waste within the domain of our own classrooms such as these simple ideas found on planetgreen.com. If we can’t talk maintenance staff into adopting green cleaners, we can make them for our own classrooms and even teach our students how to make them. We can also seek grants for things like solar panels and rainwater collection systems (planetgreen.com).

The simple act of teaching our students about the environment and our impact on it is in itself an act of sustainability. Even just getting students outdoors once in a while can make a big difference (Cleaver, 2007). Most kids spend eight hours a day in school and then go home, watch television, play video games, or sit at the computer. This generation of children is what Cleaver (2007) refers to as the “indoor generation.” The indoor generation consists of kids who spend far too much time indoors and not enough outdoors. According to Cleaver (2007), this lifestyle is beginning to have a negative effect.

Because of sedentary, indoor lifestyles, doctors treat more and more children for diabetes, obesity, attention disorders, and depression. They see fewer broken bones but more repetitive stress injuries from computers and video games. Too much time indoors and children also lose a certain confidence and independence. (Cleaver, 2007)
Cleaver is saying that the “indoor generation” shows increased signs of health issues because of a lack of outdoor activity. Once children enjoy the outdoors and understand how the environment works, teaching them about environmental issues can empower them (Cleaver, 2007). Outdoor lifestyles can have numerous possible positive effects. Cleaver (2007) states that getting outdoors can improve student test scores, stimulate cooperation, creativity, and problem-solving, and even have a calming effect on students with attention disorders. If we can get kids outdoors and show them the great things the environment has to offer, maybe we can instill a lifelong appreciation.

Even if an entire school community does not move toward green practices, individual teachers can do many things within their own classrooms to make small differences (Cleaver, 2007). Based on the ideas of Cleaver (2007), teachers and schools can be excellent models for students to emulate. Encouraging students to spend time outdoors and get involved in their local communities is a great place to start. Teachers of any discipline can find ways to integrate green practices.

**Environmental Consciousness and the Role of Art Education**

Environmental consciousness has an important role in art education. The world is in an ecological crisis that is difficult to ignore (Graham, 2007). Often, the preparation that students receive in their education is geared toward an individualistic, unsustainable, and inequitable economy (Graham, 2007). We are neglecting to teach students that our environment is important in school (Graham, 2007). Graham (2007) discusses the need to include ecology and the environment in the art curriculum. He says there are three conditions which call for art and education that relates to ecological concerns: (a) human progress that has dominated nature has destroyed many parts of the earth (pollution,
climate change, devastated wilderness); (b) mainstream American education is stuck on standardized testing; and finally, (c) the lack of contemporary art and artists in the art curriculum. The inclusion of the local environment in the art curriculum is not a category that fits in well with any kind of standardized testing and as a result, may not please administrators (Graham, 2007). Many of us are held to an expectation of or even a requirement of standardized testing in our schools. Graham (2007) is saying that this requirement often prevents teachers from branching out in their curricula because it will not fit the educational mold to which we are held. By continuing to teach to standardized tests, we are ignoring the needs of our students and future generations (Graham, 2007). Students need to know about the state of their world, and more specifically, the state of their local environment.

According to Keifer-Boyd (2001), many art teachers feel there is no room for environmental art in the K-12 curriculum because it will do nothing to prepare students for Scholastic Awards and Advanced Placement, which both follow modernist criteria that stress formalism based on the ideas of critics like Clive Bell and Clement Greenberg (Keifer-Boyd, 2001). Teaching only one view of aesthetic values, such as formalism, is extremely limiting and excludes many artistic methods (Keifer-Boyd, 2001). The inclusion of the environment could also help to support the aim towards interdisciplinary curricula that many art teachers are encouraged to use, especially with the sciences (Keifer-Boyd, 2001). Keifer-Boyd (2001) gives an example of a project based on works by the artist Lynne Hull on which I elaborate later in this document. In order to create site-specific sculptures inspired by Hull, the environment where the sculpture was to go would have to be thoroughly investigated in terms of science (Keifer-Boyd, 2001). For
example, students first would need to answer what the ecology was like, what species the environment supported, and what plants and animals lived there (Keifer-Boyd, 2001). Keifer-Boyd related one example of an environmental art project that could be integrated with other subject matter areas.

As mentioned earlier, Krug’s (2003) similar style of life-centered art education also encourages student inquiry in the classroom. Teachers need to know what is important to teach and why it is significant to a student’s education (Krug, 2003). Teachers can initiate discussion by choosing artists and artwork that relate to students’ lives in some way. Students need time to reflect, disagree, agree and negotiate their thoughts on art and life (Krug, 2003). Activities in the art room help students generate new skills and knowledge about life-centered issues for example, the environment (Krug, 2003). The environment can also be connected to home and other subjects.

Research by Keifer-Boyd (2001), Krug (2003), and Graham (2007) support that the introduction of environmental issues to the art curriculum can be beneficial in teaching students how to be environmentally conscious. By providing a setting for students to think and reflect based on artwork that presents environmental issues, art educators can initiate critical thinking. A variety of ways exist that art educators can do this through the creation of artwork.

**Environmental Consciousness and the Role of Art**

In preparation for raising the issue of the environment in the art room, a myriad of contemporary environmental artists exist from which teachers can choose. According to Neperud (1997), two traditional linkages between art and ecology have dominated up to now: (1) ecology has been viewed as nature and has served as a theme in art, specifically
landscape art, and (2) art is a tool for illustrating ecological concerns and conveying messages about ecology. The connection between art and ecology has become deeper (Neperud, 1997). In a self-centered society, many artists and art educators are using art to promote moral and social values (Gablik, 1991). The traditional purpose of art has been to be viewed and enjoyed, but not to serve any specific important function (Gablik, 1992). Gablik (1992) notes that today, with the future of the planet in doubt, individual goals are no longer important and those needs have instead become the same as those of the planet. As a result, a large number of contemporary artists create artwork with an environmental theme. “Art may never save the world, but saving the world is not the same as saving the phenomenon ‘world’ itself, which is something art can do: Art can help us to reconnect our belongingness to something precious and worthy of protection” (Gablik, 1992, p. 51). The feeling of a need to protect the planet, as Gablik (1992) mentioned, is a desire I hope to find in my students after they have experienced a curriculum that includes many environmental artists and issues.

Art has often been used to express the discontent and uncertainty in the world. Environmental artist Lynne Hull has stated, "I believe that the creativity of artists can be applied to real world problems and can have an effect on urgent social and environmental issues” (image-world.net). Hull’s work, consisting mostly of site-specific installations, focuses on her concern for wildlife. “I am increasingly aware that the greatest challenge faced by other species is the need for change in human values and attitudes toward conflicting rights, wants, and needs. I hope my work offers models for equitable solutions” (image-world.net). By using artists who have addressed the environment in
their artwork, art teachers can show their students how other artists have dealt with social issues in their artwork, and discuss the impact those artists have had.

Given the current state of the world, contemporary art has shown us a shift in which artwork has come to involve the viewer (Gablik, 1991). In other words, the artist may create works with the viewer’s perception and reaction in mind. “Many artists are perceptive about their surroundings and seek, through their art, to express, nurture, or change their environment” (Keifer-Boyd, 2001). According to Gablik (1991) the artists themselves have become less important than the content of the artwork. Gablik (1991) discusses a number of artists who have used current issues in the world today as inspiration for their artwork. In her Police State series, c. 1987, contemporary artist Sue Coe presents dark paintings that represent corruption in society (Gablik, 1991, p. 7). “There are grossly caricatured visions of Ronald Reagan, the CIA, Wall Street, the scientific establishment, the Catholic Church, Union Carbide, slum landlords, and riot police, all portrayed as tormentors in the act of destroying their victims” (Gablik, 1991, p. 2). A controversial artist like Sue Coe would provoke a lot of questions for student engagements with a variety of issues. Likewise, discussions on animal rights, poverty, abuse of women, and treatment of the environment could all arise.

As stated previously, one of the best-known and most influential eco-artists is Lynne Hull (Keifer-Boyd, 2001). According to Keifer-Boyd (2001), the terms ecoatonement and ecofeminism are both commonly associated with Hull, who is best known as an installation artist who uses her art as political activism to raise ecological consciousness (Keifer-Boyd, 2001). Ecoatonement refers to acts that make up for destruction to the environment (Keifer-Boyd, 2001). Ecofeminism, a combination of the
peace, feminist, and ecology movements, refers to cultural feminists who create art in partnership with the earth (Keifer-Boyd, 2001), such as Susan Leibovitz Steinman (steinmanstudio.com), and Erica Fielder (ericafielder-ecoartist.com). Hull’s main concern is that birds and other wildlife use and value her art, which consists mostly of installation art. “My sculpture and installations contribute to wildlife habitat, providing shelter, food, water or space for other species, as ecoatonement for human encroachment” (Keifer-Boyd, 2001). For the classroom, Hull’s artwork includes critical thinking, aesthetics, environmental consciousness, and group collaboration all in one project. As Keifer-Boyd (2001) noted, one example of an installation that could serve as inspiration for talking about and making art is The Uglies Lovely, c. 1993, an installation in an abandoned swimming pool in Lexington, NY. Branches and plants together create a floating sculpture intended to host a range of aquatic species such as invertebrates, amphibians, turtles, water birds and songbirds (Keifer-Boyd, 2001). The interesting part about this installation and all of Hull’s work is that it serves two important purposes; (a) to aid wildlife and the environment, and (b) to be aesthetically pleasing (Keifer-Boyd, 2001). The possibilities of introducing Lynne Hull into the art room at any age level are endless. Her artwork can provoke critical thinking and problem solving, as well as inspire the creation of artwork by students.

One of the most famous contemporary environmental artists is Andy Goldsworthy, whose work exudes environmental consciousness based on his chosen materials like leaves, twigs, rocks, and flowers (greenartroom.com). His work is interesting to study with students because it is ephemeral or not permanent (greenartmuseum.org). According to greenartroom.com, since the natural works he
creates are often destroyed by nature in that the rain might wash it away, the wind might knock it down, or a body of water might carry it away, Goldsworthy documents all his work with photography (greenartroom.com). One example is *Icicle Star*, c. 2003. For this sculpture, Goldsworthy joined a number of icicles in the shape of a star using only his own saliva — no artistic mediums or tools (greenartroom.com). A simple change in temperature or gust of wind would destroy this fragile sculpture instantly, but a photograph documents the natural artwork in time and place (greenartroom.com). In regards to his artwork and environmentalism, Goldsworthy is quoted as stating, “What is important to me is that at the heart of whatever I do is a growing understanding and sharper perception of the land” (greenartroom.com). Through the introduction of artists like Goldsworthy into the art curriculum, students may gain a better understanding of the fragility of their environment.

Another environmentally concerned artist who promotes the use of recycled materials is Michelle Stitzlein who creates large wall hangings out of recycled materials from junk and scrap yards (greenartroom.com). *Sulphur Blue Smeck*, c. 2004, consists of a large piece of corroded metal that forms the shape of a butterfly and includes other items such as piano keys, broken plates, wire, rusted metal, and handlebars from a bicycle (greenartroom.com). Her work, although created mostly from junk, is considered aesthetically pleasing. She is well known for her artworks using plastic bottle caps, which is a favorite for elementary school teachers because her bottle cap artworks are often large, bright murals. “She is able to bring in real world uses of materials that students would ordinarily think of as trash. Students learn that nearly every object can have a second life as part of a piece of art” (greenartroom.com). Stitzlein’s artwork may
help teachers inspire students to think creatively in their use of recycled materials in the
art room.

Art educators can use art to inspire students to make a connection with nature.

“The arts expose viewers to new ways of seeing, feeling, and thinking about nature; this
can lead to greater awareness of and motivation to act on behalf of nature” (Imm Kang
Song, 2010, p. 96). German artist, Nils-Udo, is another contemporary environmental
artist (Imm Kang Song, 2010). Inspired by the rural land in Bavaria, Germany, where he
was born, Nils-Udo depicts an awareness of nature in his artwork (Imm Kang Song,
2010). “Nils-Udo turned from painting nature to creating site-specific pieces using
natural materials such as stones, berries, leaves, bamboo sticks, movement of water and
sand, and the growth of plants found at the scene” (Imm Kang Song, 2010, p. 97). These
site-specific artworks appear in all types of environments including urban, rural, and
public. Similar to Goldsworthy, Nils-Udo’s work is ephemeral because it is allowed to
be constantly changed by nature as they can be bleached by the sun, covered in dirt, and
get wet from the rain (Imm Kang Song, 2010). Imm Kang Song (2010) said that each
experience the artwork has with nature changes it, just like the environment. “He
believes that his work can help dissolve the wall humans create between themselves and
nature and bring the full power and magnificence of the natural world into focus” (Imm
Kang Song, 2010, p. 100). Nils-Udo’s *Song of the Spirits over the Waters*, c. 2004, was
built in a wetland area in Germany and consists of a pond that Nils-Udo dug himself and
surrounded with plantings of specific types of trees like spruce and weeping willow (Imm
Kang Song, 2010). The trees are positioned in a way to stretch over the top of the pond,
almost enclosing it. “The work shares the geometric aesthetic properties of many of his
other works but differs in that it has a more utilitarian goal—to create a functional site to serve as a water habitat for the ducks flying in this area” (Imm Kang Song, 2010, p. 101). This installation was quickly successful with the arrival of ducks and many other animals that came to inhabit the area (Imm Kang Song, 2010). Nils-Udo shares his desire to create functional artworks for the environment similar to the ideas by the artist Lynne Hull. Both artists would be inspiration for students to create site-specific environmental artworks in the art classroom.

**Building Ecological Stewardship**

Lankford (1997) discusses the large amount of attention the environment receives. “In the United States, the scientific community, education, and the media have for decades been voicing warnings and lessons about diminishing resources, endangered species, and the catastrophic effects of widespread land, air, and water pollution.” Lankford (1997) questions the lack of reaction to the warnings. “What appears on the surface to be human indifference may, in many cases, be a numbing of the psyche, a means of coping with the frequency and horror of events that effect not just the quality of life but threaten life itself” (Lankford, 1997). Lankford (1997) discusses the complicated nature of typical environmental crises that often involve politics, government, economics, business, science, culture, and society. These complex events are often too much for ordinary citizens to understand, but at the very least, we can adopt a position of ecological stewardship (Lankford, 1997). Ecological stewardship involves self-awareness of our existence in and with the world (Lankford, 1997). In other words, we citizens need to take responsibility for our actions. My hope for the impact this curriculum will have on students is that they become ecological stewards.
Sadly, one needn’t look far to find a lack of ecological stewardship. Streets are often cluttered with cigarette butts, gum wrappers, paper cups, and other detritus deposited over time by drivers and pedestrians heedless of the hideous cumulative effects of litter. (Lankford, 1997)

I often see the same nonchalant attitude towards litter in school. In showing students the lack ecological stewardship, they also see how easy it is to do the opposite – simply discarding something properly (Lankford, 1997). Art education focuses on purposeful creativity directed toward increasing awareness, expressing ideas, feelings, and values, and problem solving related to local and global ecologies (Lankford, 1997). According to Lankford (1997), “Ecological stewardship in art education could include (a) the study of art from an ecological perspective, (b) artistic production characterized by ecological awareness and responsiveness, and (c) development of ecological stewardship through interdisciplinary learning” (p. 49). Working with other teachers in various disciplines throughout the school might also provide positive outcomes. Lankford notes that art teachers may find it difficult and intimidating to move from a desire to create an environmentally themed curriculum to actually putting together the plan to do so and take action. An art curriculum built with carefully chosen topics and artists could yield the kind of purposeful creativity that leads to student understanding (Lankford, 1997).

Ann T. Rosenthal (2010) is an artist and advocate for an interpretive approach to environmental art, which combines thorough research, documentation, and electronic media installations (greenmuseum.org). The nature of eco-art itself is centered upon a desire to educate. Eco-artists create artwork with the purpose of educating and informing (Rosenthal, 2010). Student eco-art projects can be completed in a variety of ways
including gardens, installations, sculpture, performance, cartography, digital media, theatre, writing, and site design and restoration to name a few (Rosenthal, 2010). Working together on interdisciplinary teams, restoration artists contribute their ideas and facilitate solutions (Rosenthal, 2010). Teaching eco-art theory and practice in the classroom may be as effective as reclaiming landfills, restoring watersheds, unearthing histories of place, and marking lived experience (Rosenthal, 2010). In other words, if teachers can do nothing else, just presenting our students with the information may be enough make a difference in their attitudes toward ecological stewardship.

Using art to teach about important and sensitive topics like the environment can have a meaningful impact on students. “Numerous studies indicate that arts education provides invaluable skills in harnessing and synthesizing the qualities of logic, organization, flexibility and insight; creative teamwork; learning that problems are opportunities not obstacles; and learning to discipline the imagination to solve difficult problems” (Rosenthal, 2010, p. 1). Based on Rosenthal (2010), studies in the visual arts can assist art educators in bringing the vital issue of the environment to the attention of their students and focusing those skills toward action. One small act is better than no act at all.

This section discussed the use of art to express concerns for important social issues like the environment, different ways that artists have approached issues concerning the environment, and ideas for art educators to introduce the environment in their curricula. Authors discussed beliefs of the power of art to create environmental change, and the ways in which environmental artists have had positive impact through their art.
Conclusion

In this review of literature, I have been encouraged by the number of schools and art educators who have embraced change and taken on the large task of going green and teaching about the environment. Re-working a curriculum in order to fit such a need is not easy for a teacher, but it became clear to me that it certainly was a need. A variety of art educators and contemporary artists made me think and inspired me with specific green practices and art making to bring to my own classroom. However, I still saw a lack of specific ways to integrate these green practices into an art curriculum. To fill this gap, what was left was to bring the ideas I discovered to the students of the school where I work and create inspiration in them. By using an eco-friendly curriculum, I hoped to impact students to become ecological stewards of our earth, and in turn, help students impact their community to do the same. “Children have to learn about the environment and come to love nature rather than just be afraid that it is going to be destroyed” (Imm Kang Song, 2010, p. 106). Teachers need to be careful not to scare students into thinking that there is no going back after the damage that humans have caused the earth, but instead teach them how to respect the environment so that they can begin to make small changes. Introducing the work of contemporary environmental artists into a high school art classroom that practices a critical pedagogy has potential to present new ideas to students. My research project documents this journey and provides data to record steps along the way to gauge the impact of this focused and intense campaign to create environmental consciousness on me as the teacher, and on the students, school, and community.
In the following chapter, I present background information and describe the site where I will conduct this study, the participants involved, and my data collection.
Chapter III: Methodology

Background Information

This study sought to examine what would happen when the concepts of stewardship of the earth were infused into a high school art curriculum. I believe this qualitative action research was necessary to complete because in my limited experience as an art educator, I discovered that the students I have taught or currently teach show an immense lack of concern for the environment. According to Merriam (2009), “Having an interest in knowing more about one’s practice, and indeed improving one’s practice, leads to asking researchable questions, which can be best approached through a qualitative action research design” (p. 1). Based on this statement, my project falls under the category of qualitative action research since my purpose was to learn more about how to improve my teaching for the benefit of students. I attempted to discover what impact a campaign to raise environmental consciousness in a high school art classroom would have on art students and their artwork, other students in the school, and the local community. In this research project, I hoped to find out why a lack of concern existed and use that information to cultivate positive attitudes toward environmental consciousness in students. I planned a curriculum supported by strategies and activities with intent to move students toward environmental consciousness. Also important to this project was to discover what I, as the teacher, could learn from researching and teaching toward environmental consciousness in my art classes.

Methodology

As stated by Grundy (1989), “Action research is more than observation or self-appraisal; it is an activity in which the development of professional practice and the
development of understanding are inseparably linked in a process where one supports the other” (p. 69). Therefore, I decided the methodology of Participatory Action Research (PAR), where the observer is also a participant, was the most effective means to deeply explore and find solutions to the preconceived notions that my students have about the environment. I also conducted this research through a critical lens, defined my Merriam (2009) as contributing to the knowledge base in a field to improve the practice of particular discipline, assess the value of something, or to address a particular localized problem. In my case, I hoped to contribute to the field of art education in order to increase the value of art to students. PAR has distinct parallels with the goals of critical pedagogy to take action and generate reform. Grundy (1995, p. 10) said, “Action research is a process of change, but not just for change’s sake; it is change specifically directed towards improvement,” which was my ultimate hope for this study. Based on results from the student questionnaires given prior to intervention and those given after intervention, I hoped to see evidence of change. It also made sense for me to undertake a PAR project because as a full-time teacher at the chosen site, I already had a relationship with the participating students. I had the advantage of existing rapport and trust with the students, so PAR seemed to be the most practical methodology.

**Site of Study**

The site of the study was McAuley Academy, a catholic, all-female, high school in Western New York. I received permission to conduct this research at McAuley Academy through consent forms from the parents/guardians of the recipients (see Appendix B: Letter of Assent). The small town in Western New York where McAuley Academy is located is a largely working-class, mostly Caucasian, Irish-American
neighborhood with a population of about 40,000. The once heavily industrialized city was home to steel mills, automotive parts manufacturers, and various factories. Once busy and bustling, these days many abandoned and run-down warehouses can be found in certain areas of the city, although many of the main arteries are still full with families and life. Many of the residents of Western New York and their families remain in the area their entire lives. It is not uncommon to know or even be related to many of your neighbors in Western New York, as the idea of six degrees of separation is more like three degrees here. A short drive through the city will be sure to reveal families outdoors walking or cycling, kids playing street hockey, and homeowners out working on their 1920’s colonial homes. This area of the city is clean and well kept, as most of the families who live there have strong pride in their Irish neighborhood.

Many educational opportunities exist in this small section of the city that offers almost ten schools that are either parochial, public, or charter, including McAuley Academy. Bordered by a local park, a busy hospital, and a small college, the neighborhood surrounding McAuley Academy is intimate, quiet, and safe. Both students and teachers can easily walk to school, hop across the street for sports practices in the fields at the park, and walk to each other’s houses after the last dismissal bell rings at 2:38 p.m. The modest red brick building stretches over half a block down the residential street on which it is situated. The neighbors’ houses are a stone’s throw away, as the city setting of McAuley Academy does not allow for much in the way of expansive school grounds. A small patch of grass runs parallel to the front of the building with narrow gardens along the perimeter, and a few mature trees, which add to the curb appeal of the exterior during every season of the year. Without much room for a parking lot, every
morning is a parking battle for the lone fifteen spaces in the tiny faculty and staff lot and after that, faculty and staff may be stuck with a spot all the way up the street – a pleasant walk in the fall and spring, but a long, bitter one in the winter. The building is still attached to the original convent, which is often shared for school events and gatherings. Although many rooms have undergone renovations and improvements, most of the school is the same olive green cinderblock with black and white speckled floors from one hundred years ago when it was built. The approximately 250 students who attend McAuley Academy are mostly Caucasian (87%) followed by Black (5%), Asian or Pacific Islander (4%), Hispanic (3%) or American Indian (1%) (www.highschoolsintheusa.com). McAuley Academy’s teacher to student ratio is 11:1.

Walking through the halls before the first bell on a typical day, one can be sure to find girls sprawled out with their pajama pants still on under their grey tweed uniform skirts, finishing a bagel or downing a cup of hot coffee from the café around the corner. The girls are commonly seen cramming in last-minute homework, or squeezing out another text before the ring of the first block bell at 7:55 a.m. Students shuffle slowly and tiredly in to classrooms to await the beginning of morning announcements, preceded daily by prayers and the Pledge of Allegiance. A student in a McAuley uniform will have on a white or navy blue polo, a gray skirt, and knee socks. Most of the girls are nonchalant about their appearance. They do not usually bother with makeup and typically throw their hair up in the popular “messy bun.” They are comfortable and casual.

One of the two art rooms in the school, Room 12 is on the ground level. The room is small but organized and clean, hosting daily classes as small as 8, and as large as
25. Walking in the door, one sees five computers with scanners and printers to the left, storage units and a drying rack to the right, four long tables with six seats each straight ahead against the wall, and a long, waist high, beat up work table that divides the room horizontally down the center. Since my classroom is on the ground floor of the school, I am lucky to have five large windows to let in lots of light and give a good view of the surrounding greenery. The far wall to the left is filled with large wooden cabinets floor to ceiling, and a white screen that pulls down from the ceiling when needed, and rolls back up when not in use. My computer, hidden in the far left corner serves as a spot to work during my planning blocks, but nothing more as I gave up most of my own space and rented a locker to make more room for the students. One common art room finding is missing in this room – a sink. Since this room was never intended to be an art room, I use soap filled buckets in place of a sink. It is not uncommon to see me trudging down the halls with heavy water-filled buckets 5 to 10 times a day. I am happy to at least have my own classroom in which to work. My students and I spend a lot of time together in the tight quarters of Room 12 and get to know each other well. I believe this intimate space gave me an advantage in pursuing this study.

**Participants**

The participants in this research study included art students in grades 9-12 in an Art One class and an Advanced Digital Media class at McAuley Academy. Only students in full-year art classes were chosen for the study due to the time constraints of a semester class. Participants received permission through a letter of assent (see Appendix B). The students ranged in age from 14-18 years old. McAuley Academy is a single gender school, all participants are female. The total number of students participating in this
study was 15 and I reported on data collected from all 15 students. Many of the students are from the local community in which the school resides and most come from middle class families.

**Role of Researcher**

My role in this research was as participant observer, since I saw things first hand and used my knowledge and expertise to interpret what I was observing rather than relying on interviews (Merriam, 2009, 119). I taught the curriculum to students in my own art classroom at McAuley Academy. Since I performed PAR, I was highly involved in the whole process of study. The students and I worked together as we sought to uncover how our current practices were harmful to the earth, planned what we would do to change, learned what artists were doing to promote change, and spread stewardship of the earth as far as we could. As the teacher, it was my duty to model environmental consciousness for the students. In the artwork I presented, the projects I assigned, and the way I ran our green classroom, my hope was that stewardship of the earth would be a permanent focus.

**Data Collection**

According to Marshall & Rossman (2006), qualitative data collection can take place in the form of observation, interviewing, and analysis of documents (p. 97). Based on these, I developed three strategies to collect data to be applied to my study. Triangulation of data was achieved by using multiple methods of data collection and sources of data to confirm findings (Merriam, 2009, p. 215). First, preliminary anonymous questionnaires were given to students to uncover any preconceived notions held about the environment. A second round of anonymous questionnaires were given to
determine outcomes at the end of the study. Since the questions were answered anonymously, the students may have felt more comfortable giving honest answers. Similar anonymous questionnaires were given to members of our community at a public school event, which gave me a broader sense of preconceived notions toward the environment. All answers to these questionnaires were color coded so that they could be thoroughly analyzed. I had hoped to begin to understand student’s thoughts and opinions on the environment so I could gear my teaching towards them. For example, if they had an immediate negative reaction towards the subject of the environment, it was beneficial for me to know that for planning purposes for discussing the topic in class. For my second method of data collection, environmentally themed student artwork was photographed and analyzed to investigate what the students learned. The photographs helped me in being able to study any details that might not have been possible otherwise (Bogden & Bilken, 2007). These photographs were for research and analysis purposes only. As this artwork was created, I observed and recorded students’ practices with materials and thought processes behind the artwork. The photographs helped me to remember the students’ actions and feelings as I wrote about my research findings later in the study. The students also wrote about this artwork in their art journals and blogs. Third, I kept a dated journal with descriptive field notes and reflections to record my direct observations during the process. This method of data collection may have been the most important for me as I recorded not only student responses to what I said, but also what I was thinking and saying at the time. I recorded my own response to a student’s negative or positive reaction and recorded my exact feelings at the time in an open, honest, and reflective way. I focused my attention on recording data as it occurs rather
than attempting to recall it later (Creswell, 2007). This allowed me to keep track of student’s verbal responses, body language, and general attitude while it was happening. As these triangulated data collection methods were performed, the data was color coded and analyzed. I searched for themes, tendencies, and similarities, and tracked changes in student’s responses from the first questionnaire to the post-questionnaire. All three collection methods benefited the research process by providing clues as to what I could infuse into both the curriculum and the daily classroom atmosphere to help encourage students to understand and work towards eco-conscious habits.

**Ethics**

Throughout this study all individuals and sites were referred to with pseudonyms. In addition, all identifiers were changed to ensure the anonymity and safety of participants. While all students were required to participate in the curriculum and routine of the classroom, only data from those students whose parents signed permission forms was reproduced in the project report. Non-obtrusive data collection methods (Merriam, 2009) along with pseudonyms minimized any risk to students. In compliance with the requirements of Buffalo State College, permission for this study has been formally requested in writing and approved by the Institutional Review Board (IRB). The IRB has reviewed my proposal and plans for research for this study. In accordance with ethical responsibilities, the student participants were fully aware of all aspects of the study from the research process to the final product.

All records with identifying factors have been kept strictly for the purpose of organizing and writing the final report. Participants and their parents have signed an informed consent form, which gives all necessary information surrounding the study and
acknowledges that participants’ rights will be protected during data collection (Creswell, 2009). All data will be retained in a secure, locked location in my home for at least three years following the completion of the study in compliance with federal regulations.

Another consideration is that a lack of reciprocity can cause an ethical issue (Creswell, 2009). According to Bresler (1996), reciprocity means more benefits arise from the study than harm. The study was beneficial for the researcher as well as the participants. My hope was that the participants would benefit from a growth in knowledge and a greater sense of environmental consciousness. As the researcher, I hoped to walk away with a growth in knowledge about green practices in art and experiences to share with other art educators.

**Conclusion**

This purpose of this participatory action research is to find out how the introduction of a campaign to raise environmental consciousness in a high school art classroom can impact art students, a school, and a community. Through the lens of critical pedagogy, I investigated the connection between environmental consciousness and art students. The triangulation of questionnaires, analysis of student artwork, and descriptive field notes provided background information for the study, which has been reviewed and approved by the IRB at Buffalo State College. During the process, I collected data from participants who received permission through consent forms. Through these topics and methods, I hoped to see whether this type of curriculum would encourage the development of stewardship of the earth in art students.
Chapter IV: Research Findings

Introduction

As the green digital clock in my car hits 7:02 a.m., I back out of my long concrete driveway and head to work, where I hope to arrive in time to get a good parking spot. I already regret not grabbing a coat on my way out the door as the early fall morning is a bit crisper than I care to admit, heightening my anxiety towards the approaching winter months. On my short drive to work, I pass groups of students walking to school or stopping at the local coffee shop that has the best coffee in town. The houses on the busy main drag are old and quaint, many with beautiful 1920’s characteristics. With the sun not quite all the way up, the slight darkness allows me to see into those houses with lights glowing inside as their families eat breakfast and scurry around to get ready for whatever their day holds.

I am at work within minutes since I not only work in this town, but I live here too. I breathe a sigh of relief as a parking spot close to the entrance comes into view and I hurriedly park and head towards the entrance. The faculty entrance is hidden in the back of the old brick building and has a large black number 5 spray-painted on the royal blue door. On some mornings, if my eye has an extra moment to rest on the door as I enter, I notice the shiny drips of spray paint trickling out of the big black number. It amazes me that always look like they could still be fresh and every once in a while, I get the urge to run my finger over them, but never have; I have a classroom to hurry to.

I pass by the peach walls of the dining hall and into the long, mostly empty hallway where my classroom is located on the ground floor of the building. I hear voices here and there but it is mostly quiet, with a few scattered students sitting on the floor in
front of their lockers. I take the first right and slide my green classroom key into the large wooden door of Room 12. With a slight kick, the door opens and I am greeted with the familiar smell that is my classroom. I drop my bag behind my desk and open my e-mail immediately. While that loads, I take a quick survey of the room and decide what needs to be done in the next 40 minutes before first bell rings. I walk down the wall closest to the door and flip the switch on all five computer monitors and two printers, pushing in the olive green chairs with my hip as I go. I pass the three long rectangular tables centered in the room on my way to opposite side of the room where I empty the small recycling bins into the large one and straighten the baskets of supplies, still a little disheveled from the day before. While I’m there, I open the blinds to all five large windows and am welcomed by green grass, pine trees, and various plants and flowers on the tiny lawn between the school and the street. My room is half below ground, so the greenery is at eye level, which is a pleasant sight on a nice day or a reminder of the long winter when it is bitter cold and snowy. With the blinds wide open, I hardly notice the sage green tiles and black and white speckled floor that cover my room. The original blackboard is covered with corkboard and decorated with handouts, master copies, and project examples. The full wall of wooden cabinets certainly does not add to the lack of color in the room but by a few weeks into each school year, they are pleasantly filled with art of all kinds.

I make a 360-degree pass through of the room and end back where I started, at my pale pink formica desk where my e-mail has finally loaded. I open my coffee, knowing it will be cold by the time I remember to drink it an hour into the future, and begin to go through my e-mail. I take a quick peek at my Google calendar as the voices in the hall
get louder every few minutes and the clock ticks closer to the 7:55 a.m. warning bell. I open my brown plan book and remind myself of what I have scheduled for the day. By the time I have my head on straight, the bell chimes and leaves a slight echo. Students slowly begin to filter in. First block is upon us and the school day has started.

In my fourth year of teaching, this routine has become set for me. However, when this school year started, I shook things up a little as a way to implement this research project into my own classroom. My inspiration for the project came long ago. I developed a personal interest in eco-consciousness as I became an adult, and as that interest grew, it infused both my work and home life. I wanted to impact my students and empower them to do something important. On the first day of class, the professor, Dr. Shirley Hayes, told us all to choose a "quizzical itch," something that peaked our interests for one reason or another. Critical pedagogy insists that one of the fundamental tasks of educators is to make sure that the future points the way to a more socially just world, a world in which critique and possibility are taught in conjunction with the values of reason, freedom, and equality to alter the grounds upon which life is lived (Giroux, 2010, p. B15). As a research topic, the idea of a green classroom struck me immediately and became my passion for the next three semesters.

A Fresh Start

September 7, 2011, marked a new day in my professional career. It was the start of my fourth new school year as a full-time art educator, and the beginning of a responsible, eco-conscious year of teaching. It felt wonderful and fresh to me. I was so anxious to jump in. I had been practicing eco-consciousness at home for a long time but never felt comfortable forcing my own beliefs and practices onto students. This research
project gave me the perfect opportunity to integrate these ideas into my curriculum and have them resonate throughout the entire school year. I decided to implement this research project through a lens of critical pedagogy in order to provide students with a valuable educational opportunity. As Kellner (2000) noted, “Critical pedagogy considers how education can provide individuals with the tools to better themselves and strengthen democracy, to create a more egalitarian and just society, and thus to deploy education in a process of progressive social change” (p. 197). I hoped to provide students with these tools through this project. It took a lot of classroom rearranging and re-writing of lesson plans (see Appendices K, M, and O), but I managed to revolve all my projects and daily classroom activities around my passion for being green. One of my favorite additions is the recycling center complete with bins for paper products, aluminum, plastic, and ink cartridges. Next to that is the cabinet full of a complete line of green cleaning products. These two areas along with our “Pledge to Go Green in the Art Room” and multiple recycling reminders are the most visible indication of our green classroom.

Before diving into project work, I asked each student to fill out a pre-questionnaire (I was interested in their unbiased thoughts about the environment) with a second round of questionnaires at the end of the projects so that I could note the changes. Each student was assigned a number so that I could compare and contrast their questionnaire results without needing their names. I also kept copious field notes from the start to the finish of this project to be able to document anything that happened during class time and have a space to write my own thoughts and reflections so I would not forget them when it came time to go back and analyze my data. I encountered no resistance from students on the first day of school when I gave them a tour of the room
and laid out my expectations of green habits in the classroom. To be honest, I was surprised. I had been expecting at least an eye roll but everyone complied. Most had neutral responses, neither negative nor positive, but a few students actually seemed excited. As I discovered later on in my questionnaires, some students routinely practice eco-conscious living at home and were happy to see it in school as well. I felt I was off to a good start.

**Methods of Data Collection**

With all the excitement and changes to the classroom environment, it was important for me to keep track of all that was happening on a daily basis. I used three methods of data collection during the months when I was implementing my research project. First, and most important to my research in my opinion, were my questionnaires. I began with anonymous student questionnaires (see Appendix C) to get a feel for where my students were coming from before we became too involved in the project. I wanted to know what they knew about the state of the environment, recycling, and their own individual responsibilities as citizens of the earth. I gave each student a number so that the results would remain anonymous. I used these survey results as a basis for things I needed to teach the students. After two full months of experiencing a green classroom environment and learning about eco-art, I gave the students a follow-up questionnaire (see Appendix D). Using the same numbers each student was given for the pre-questionnaire, I was able to compare and contrast results. This method of data collection gave me the most insight into the minds of the students because they were honest and straightforward since they were completely anonymous.
I also used anonymous questionnaires (see Appendix E) as a way to determine our effectiveness in reaching members of our community. A few students who were involved in the research project volunteered to help me distribute the questionnaire to members of our community at our Open House. I set up the classroom with all the eco-art projects the students had completed, each with a description and write up of the key eco-artists discussed. It was clear that community members were intrigued in our endeavors by their level of interest in the projects. There were even students working on a Michelle Stitzlein inspired bottle cap mural during the event so that community members could see us in action. Students invited those interested to glue down their own bottle cap and become part of our mural forever. This went over well with our visitors and I was impressed that students came up with this idea on their own. The main purpose of advertising our efforts was to spark an interest in our community members and inspire them to commit to green practices as we were.

The field notes also proved to be highly beneficial to my findings because I was able to catch so much more detail than I thought I would be able to. Since I was teaching and researching, I was worried about being able to get enough down during class time as compared to someone who was implementing their research in another teacher’s classroom. As it turns out, by carrying my field notes journal with me at all times, I was more likely to jot things down because it was so convenient. They were often somewhat cryptic and short but by reviewing them daily, I was able to go back and make quick sense of them for my data analysis later on. I wrote field notes every day in the classes where I was implementing my research and then went back at the end of my research to interpret the contents in more depth.
My third method of data collection involved the final artwork that the students turned in for each project. I developed a checklist (see Appendix J), which I used to analyze the photographs that I took of each project. I looked for criteria regarding two main ideas: the artwork itself and the student engagement in the artwork. Regarding the artwork itself, I looked for completion of the project, use of green materials, and that the artwork took inspiration from the key eco-artist that was discussed in class. Regarding student engagement in the project, I noted that the project was taken seriously, the student had a passionate response to the eco-conscious theme, the project had an impact on the student, and that the process of the project from start to finish revealed an understanding of the project. Since I photographed the projects, I was able to spend a long time looking at and analyzing them. The photos of the artworks (see Appendices H-J) became an important part of my research project and helped determine outcomes later on.

Once all the data was collected, it was time to sift through it all and begin to analyze. On my first round of analysis, I used colored highlighters and highlighted data to begin searching for repetitive themes. I was able to pick out small details, decide their significance, and label and code them accordingly. After this first round of coding, I emerged with nearly 20 categories in relation to anything from student responses to the green classroom to my own teacher reflections about what was happening. I then did a second round of analysis to start grouping findings together and creating fewer, broader categories. This was the most detailed part of the research process since I had to decide was constituted a finding and what did not. After this, I was able to narrow my findings down to five big categories. Finally at the end, these five big categories would turn into
key concepts that emerged from the data. Each of these categories relate directly back to
my central question and subsequent research questions.

Reinforcement Through Eco-Art Projects

With the students on board, and the beginning of the year paperwork and
activities under our belts, it was time to start the first eco-art project with my classes. In
preparation for constructing bottle cap murals based on the work of Michelle Stitzlein, I
held a bottle cap drive the last few months of the previous school year and collected three
garbage bags full of plastic bottle caps. In Studio in Art One, students were fully
engaged in Stitzlein’s work. While reviewing my field notes, I noticed I had written
about the excitement in their facial expressions and their verbal responses like “That’s so
cool!” and “Are we going to get to do that?” The students were clearly hooked on her
beautiful creations and couldn’t wait to make some of their own. Students were
challenged by being given all the cardboard boxes from my shipment of art materials to
cut down and use as the bases for their murals. They are used to me providing them with
a surface on which to work but in this case, they had to make their own. Students had to
go through a planning stage, which included a sketch to determine the size, theme, and
colors of their murals. Most students worked in groups of three to four. Once their plans
were approved, each group created a base from the cardboard boxes and chose a base
color to paint it. We even used a new line of soy paints in keeping with our green theme.
One student even asked if the hot glue we were using was eco-friendly. When I told her
that I did not think it was, she responded by saying she would invent recycled hot glue. I
hope she does! A response like this made me realize that the students were understanding
eco-consciousness on a deeper level already. The student that wanted to invent eco-
friendly hot glue was thinking past the here and now and into the future. I believe it takes an understanding beyond the surface of a concept to be able to do this. Over a few blocks, I anxiously watched and took notes and photographs as students used their own creativity and problem-solving skills to make these large murals.

A total of three murals were completed (see Appendix H). I had two groups choose an anti-bullying theme with the popular “NOH8” message, which stands for “No Hate,” and the other was an abstract circular design. While taking field notes and watching the students work and analyzing their final artworks through the photographs I took, I concluded that Artwork A (see Appendix H) focused more on their theme of “NOH8” than the actual process of using bottle caps as an art material. This group seemed to struggle with the placement of the bottle caps since they only used them in certain areas of the mural. The small rectangle of bottle caps placed in the bottom left corner was evidence of this. Also, in reviewing my field notes, I noticed that the students who completed Artwork A were the first group to finish, insinuating that they may not have put in as much thought or effort as some of the other groups. The students who completed Artwork A also were the only group to go back and add paint to color and finish their design, a task that the other groups completed with bottle caps alone. Although these students did use the soy paint, I believe they struggled with understanding the use of bottle caps as an art material since they needed to add paint to complete it.

Artwork B (see Appendix H) was the most well planned mural as this group placed all the bottle caps down and rearranged them numerous times before beginning to glue them. The use of the bottle caps in this mural is the most important factor of the finished artwork. Although the design is also good, it is secondary. I think anyone who looks at
this artwork will be more impressed with the amount and variation of bottle caps over anything else. Also, when analyzing this artwork through the use of the Artwork Analysis Checklist (see Appendix G) and in reviewing my field notes, I noticed that the students in the group were the most engaged from start to finish. Their work is also the most closely related to the work of Michelle Stitzlein. Artwork C (see Appendix H) was also successful in making use of the bottle caps as art materials. Although they also have a “NOH8” message, it is subtle and does not overtake the project. This group also planned their murals well and succeeded in using bottle caps for an eco-art project. For these reasons, I concluded that the students who completed Artworks B and C successfully completed the projects according to the assignment, used green materials, and took inspiration from the key eco-artist, Michelle Stitzlein in accordance with the Artwork Analysis Checklist (Appendix G). I also concluded that this eco-art project was successful in reinforcing the main objectives of a green art classroom.

While the Studio in Art One students worked conscientiously on their bottle cap murals, I started the Studio in Advanced Digital Media classes on the Chris Jordan project (see Appendix I). Chris Jordan is a photographer who has completed many series dealing with capturing evidence of wastefulness in photographs. We focused on his Running the Numbers series, which included triptychs of these types of photographs. When introducing this project to students, I sensed a lack of excitement. The students were quiet when we looked at Chris Jordan’s work and did not ask many questions like they usually do. They did not have a negative response in any way but seemed neutral and reaction-less. I documented this in my field notes during class to come back to at a
later time. I sent them off with their assignment for the project and hoped it was just early Monday morning blues that caused the lack of motivation.

When I returned to my field notes to analyze them, I decided that the cause was most likely not the Monday morning blues as I had hoped. Students seemed disinterested in Chris Jordan and his artwork itself. I decided I would have to address this with students for the success of the project. The incident bothered me for the rest of the day so I decided to openly confront the students about their feelings at the start of next class. In accordance with the homework assigned, students had photographs for the project taken and ready to post-process and print, which was great but as it turns out, they were upset that they could not find subject matter that would be on par with Chris Jordan’s overflowing landfills and cell phone burial grounds. I was relieved that the students did not dislike the project but were just struggling because it was something I could fix. We decided as a class that day to use class time to “hunt” for evidence of waste in the school and on the school grounds. In doing this, I watched as the students made informed judgments about what qualified as waste and where to look for it. This activity definitely changed their outlook on the project and renewed their confidence. In analyzing their completed artwork, I was happy with the results. Most students chose literal subjects like cans and bottles, but one student impressed me in her choice of subject matter. She told me that after going home that day, she walked into her cluttered and messy room and was hit with the realization that she is wasteful in a sense, beyond a lack of recycling. She said she felt immediately guilty at the amount of clothes she has, many never worn and some still with tags. She decided to make her piles of clothes her subject matter for this project. Artwork E (see Appendix I) shows this students completed triptych. While all
of these students completed this project and understood it, this student came to a deeper understanding of what excessive consumerism really means. For these reasons, I concluded that the students successfully completed the projects according to the assignment, used green materials, and took inspiration from the key eco-artist, Chris Jordan in accordance with the Artwork Analysis Checklist (Appendix G). I also concluded that this eco-art project was successful in reinforcing the main objectives of a green art classroom.

The students of Studio in Art One were introduced to eco-artist Andy Goldsworthy and were immediately engaged. We discussed his eco-art installations, his materials, and watched video clips of him working. The students were intrigued and most of all, happy we would get to go outside. The students broke into groups of two spent some time creating planning sketches and material lists. With only one class block to gather materials, create their artwork, and photograph it, the students needed to plan well and be ready to go.

Next class came and we headed outside. Many students showed up with supplies like gloves, shovels, and buckets. It had just finished raining for the 3rd day in a row and the fall leaves looked especially bright. I would like to think that Andy Goldsworthy himself would have been inspired that morning. As soon as we crossed the street, each group sought out their perfect spot for their installations and got right to work. They gathered leaves, twigs, mud, stones, and water and began working together to put these materials down onto their chosen surfaces.

To my surprise, they did not hesitate a bit. I thought they might be a little timid as usual and afraid of doing the wrong thing, but they dove right in. I was happy to see their
preparedness. As I moved from group to group with my notebook and camera at my side, I was impressed by how beautiful these installations were looking. Surprisingly, there was barely any conversation. The students were usually very chatty while working, but that day they were quiet and focused. The projects took about 45 minutes to construct, perfect, and photograph. The completed projects (see Appendix J) were gorgeous and the students had a great time making them. One student commented that she couldn’t wait to get the photo of the project on Facebook so everyone could see it and I could not agree more because I could not wait to put it on Facebook either. I felt really good after this project. After analyzing work from the completed installations, I concluded that most five of the seven groups who completed this project really understood it. The other two groups did well but rushed to finish and chose to be more playful with their installations. For example one group decided to write out the word “love” with leaves (see Appendix J, Artwork M) which was not from their original planning sketch. Another group also strayed from their original sketch and created a robot from grass and twigs (see Appendix J, Artwork J). Since these installations were supposed to be well designed and aesthetically pleasing, these two installations were not as successful as the other five. I believe if these groups had stuck with the original plans from their sketches, their installations would have reflected better outcomes. For the reasons previously mentioned, I concluded that the students successfully completed the projects according to the assignment, used green materials, and took inspiration from the key eco-artist, Andy Goldsworthy in accordance with the Artwork Analysis Checklist (Appendix G). I also concluded that this eco-art project was successful in reinforcing the main objectives of a green art classroom.
Overall, I was happy with the projects I chose to do with my students. The only one I may have changed was the Chris Jordan triptychs. I think it may have made it more interesting to have a field trip or an outing to search for waste in other places besides just our school. Yet, I was satisfied with the results of the projects and conclude from my data that students were also. The projects mixed well with what we were already doing in class and echoed the theme of eco-consciousness. Based on survey results, 14 out of 15 students said they learned a lot about eco-consciousness and green practices since discussing these concepts in class. The main goal of my research project was to make students more informed about the environment and the data I collected from the surveys, artwork analysis and field notes tell me that I was successful in doing so. The following sections discuss the results of data collection in depth.

**Preconceived Notions and How They Changed**

The preconceived notions of students going into this research was important to my research questions, so I made sure to take note of it before getting too far into the implementation of my project first, through the student questionnaires and second, in my field notes. My assumption going into this project was that students may not know about the state of the environment or how or what to recycle. I wanted to find a deeper understanding of what was holding them back from eco-consciousness. For this reason, I included questions on the pre-questionnaires to get some data on this theory. Questions 3, 5, and 12 gave me the most insight.

As noted earlier, I thought lack of knowledge could be a factor to why students were not displaying eco-conscious behavior. To my surprise, according to data from my field notes and student questionnaires, students actually were knowledgeable about the
environment. Out of 15 students who completed this questionnaire, all 15 students answered the questions about the state of the environment with either the environment is in trouble or bad shape but our efforts might save it. Based on these answers, I concluded that the students were environmentally aware, meaning they knew about the state of the environment. This ruled out my assumption that their preconceived notions were causing their lack of eco-conscious. To solidify this, all 15 students answered yes when asked whether the current concern over the state of the environment was justified. It was obvious I did not give them enough credit in this area. So if they knew the environment was in trouble, why were they resistant to being green? After thorough analysis of the responses to these specific questions from the questionnaires, I concluded that I had to dig a little deeper.

The question asking whether students thought it was possible for individuals alone to make a difference in the environment by making small changes gave me some interesting data. After analysis of responses, I found that only 8 of the 15 students answered yes. Now I was getting somewhere. It seemed that students did not think a small effort of their own would be enough to make a difference. Maybe this was why I was seeing such a lackadaisical attitude toward green practices. This was the preconceived notion I was searching for and it was up to me to try to change it. I used the data acquired to focus my attention on changing this preconceived notion in my teaching.

**Student Response to Eco-Consciousness**

I anticipated resistance to introducing a theme of eco-conscious in my art classroom. I was worried students would not see the importance and might get lazy when
I asked them to start being green citizens. To my surprise, I really did not encounter much. Most students either were neutral to the change or had a positive response. I concluded that I did not give students enough credit in this area either. Students were willing to put forth the effort, which became an important finding for me. I believe that there were a few important contributing factors to this. First, this theme was instituted on the first day of a new school year. There was no time for students to develop bad habits in my room and I did not have to start enforcing recycling rules after bad habits formed. It was almost preventative because it was dealt with it before it became an issue. Second, I implemented this research in my own classroom. I was not a guest in someone else’s room where I was not in charge. When students are in my room, they look to me for leadership. I do not think this would have been received as well as it was if I were a guest in another teacher’s classroom. Their respect for me as a teacher and my respect for them as students yielded were imperative to the success of this project and became another important finding. Finally, I was consistent in my expectations of students. I did not allow them to get away with improper behavior. If a student put paper in the garbage can, I addressed it every time, not just some of the time. I would correct it and ask them to remove it immediately and without hesitation. After a few weeks of consistency, I found that I was able ease up because they understood and were aware of the expectations. In letting go and creating a more democratic style classroom, I allowed students to synthesize and interpret information instead of standing at the front of the room and dictating it them. According to Freire (1970), teachers may find it difficult to move from a system of depositing information into their students to a more democratic style classroom. In doing so, I concluded that the students were able to come to a better
understanding of the changes we were instituting. In fact, the students became my greatest tool for daily reminders to be green. I was overjoyed when a student in class told me that she reminded someone in her Biology class that their pop can should have gone in the can bin in the cafeteria, not the garbage can. I was so proud of her. It was when the students were reminding themselves and their peers to be green that they were on their way to becoming responsible, eco-conscious citizens. This change was another important finding.

My field notes revealed numerous occurrences where the students’ responses to this project were evident. For example, while working on a collage project, a student brought one of the classroom recycle bins right to her table to discard her scraps. She needed no reminder. She took the initiative without any push from me. This revealed the level of maturity and eco-responsibility that I was hoping to achieve. In another instance, a student said to me, “This is the only class where I’m not bogged down with useless handouts. I don’t even need a folder for this class because everything I need is on my flash drive or on the blog. It’s so much easier.” I was glad to hear that the students were happy with the blog. It showed that they appreciated what I was doing which in turn, proved that using a blog was a classroom strategy that had helped me move students toward environmental consciousness. Since this was one of my research questions, this proved to be a positive finding. Using a blog or website benefits so many areas. It is green, it is a great use of technology in the classroom, and it cuts out extra steps. I no longer need to send for copies. Students are able to pull up everything they need on the laptop or computer, or even their mobile devices like iPads, and iPhones. I will never go back after using a blog.
One of the biggest clues that students were listening and responding well to this project was the extreme reduction in garbage in my classroom. I was used to having two full-sized garbage cans that were emptied daily. Now, the garbage was so minimal that I had only one medium-sized garbage can and I was able to go one to two weeks without it needing to be emptied. Even our Maintenance Director mentioned this change to me. He asked where all the garbage was going. I pointed to the numerous recycle bins and said, “It’s finally going where it’s supposed to!” This also addressed my research question about classroom activities and strategies and for this reason, the reduction in classroom garbage became another research finding. This trend continued well after I was finished collecting data and is something of which I am very proud. Students proved to me that they were making changes and taking initiatives.

Effect on Community

I had high hopes for reaching our immediate community with this research project. In Chapter 3, I talked about the small, close community where my school is located and I think this was a big benefit to us. People talk and word travels fast in this community. I decided to use this to my advantage and survey community members at our school’s public Open House. As Lawton (2010) noted, “Through community outreach students may become empowered and more socially and politically aware. They learn to look outward, beyond their life as members of a family and students in a school to life as citizens of a community and a world in which their voice and actions may be both personally and socially transformative” (p. 7). I believe reaching out to our community helped students realize that they could have a larger impact. They were able to explain our green efforts to strangers in their own words, again proving that they did
have an understanding of eco-consciousness. I created a display of the eco-art projects we were working on and highlighted all of green classroom practices for the public to see. As parents and community members wandered in and out of my classroom, my students and I talked to them about the things they were seeing and asked those who seemed interested to take a five question anonymous survey. The students who volunteered with me that evening put the questionnaires on iPads so they were quick and portable and did not inconvenience our guests in any way. The results of the anonymous community questionnaire (see Appendix F) were pleasing. We were lucky to have 39 anonymous community members take the questionnaires and most said that our efforts made them think twice about their own individual practices. Out of 39 questionnaire-takers, 23 made pledges to try harder. For example, one person, who sounds like they might be a teacher also, had this response:

In seeing that teens are making a difference just by being aware and making simple changes in the art room, then I should be able to make a difference as well. I will make sure to recycle more than just plastics. I will try to be aware of how much waste I create. I will try to turn off lights in my house and classroom when not in use and try to encourage others to do the same!

I could not ask for much more than this. It is clear to me that we had a positive impact on this person. Other pledges included using reusable bags at the grocery store, recycling more, buying local, using less paper, and switching to eco-friendly cleaning products. It is these small things that can make the difference and it seems the members of our community realized that after visiting my classroom that day. Another indicating factor is that the Art Department has had a large number of donations of materials come in.
Community members, especially parents, realized that we were recycling non-art materials into art and started to think twice before throwing things outs. Perhaps the best example of this is a parent who works at a local clothing store and donates all the plastic bags from their shipments. The Art Department has used these bags for everything from storing clay to covering tables. All it took was a little communication.

I feel confident in concluding that we were successful in reaching our community with our message. This answered an important part of my central question about how we could impact our community, and therefore, was another research finding. I believe as time goes on and more and more students pass through my green classroom, the news of our small but significant efforts will continue to spread.

**Teacher Reflections**

I noticed that I was paying a lot more attention to the students during this research project than I have in my previous years of teaching. I was always interested in their thoughts and ideas but by recording classroom happenings in my field notes, I did a lot more watching and listening than I was used to. I paid attention to body language, attitude, mood, and changes in the students. I think this gave me great insight into the minds of the students and I think they respected it because they knew I cared about what they thought and wanted. I asked questions and valued their opinions. This became another important finding because it answered the question about what I could learn as a teacher from researching and teaching about the environment in my art classes. I learned that respecting your students earns their respect back. I have decided that it would be beneficial for me to continue the process of reflecting on a regular basis in a teacher
It was beneficial for me to write down what I noticed and then review it to make changes. For example, one excerpt from my field notes says, “Overall, I think they “got” the project but I don’t think they enjoyed it. Next time, I should add an activity to get students out of the classroom and maybe even outside.” This reflection guided the changes I made to the Chris Jordan project. If I had not written these thoughts down, it is possible that I may have forgotten. Another example reads, “I have to remind students that although they are making art, they are also celebrating the environment and practicing eco-consciousness.” I wrote this two days before students went outside to complete their Andy Goldsworthy installations. Again, had I not written this down, I may have forgotten and made these important reminders to students.

This process happened repeatedly during the implementation of my research project. Analyzing student artwork from photos of the artwork using the Artwork Analysis Checklist (See Appendix G) was a process of reflection for me. It was a time where I could think back on the project and reflect on the success or lack of success of the project. I found difficulty in deciding whether or not the student had a passionate response to the theme of eco-consciousness, whether the project had an impact on the student, and whether the process of the project from start to finish revealed an understanding of the project. This thoughtful, reflective process was supplemented by data from my field notes and questionnaire results. It was similar to the process of grading artwork using a rubric. The teacher must take into account the entire process, not just the finished product. After completing this research project, it is my opinion that
teachers should take time to reflect more frequently. This important time out of a busy day is insightful and can be quite powerful. According to Freire (1970), teachers need to trust in and respect students and be willing to learn from them. This research project, which was completed through the lens of critical pedagogy, was an important reminder for me that as the teacher, I am not source of all knowledge. I can make mistakes and learn from my students and use those experiences to become a better teacher. I have also adopted that lens of critical pedagogy as a part of my own teaching philosophy. The questioning of the status quo and working towards awareness and change became important to me. This was something else I learned about myself as a teacher through this process. A critical pedagogy had not appealed to me in the past. Once I completed this research and truly understood what it meant, critical pedagogy became a constant in my teaching practices. I believe I was successful in learning from my students during this project.

Willingness to Commit to Green Practices

I was pleased to find that so many students were willing to commit to green practices. The responses on the post-questionnaires were the most evidence of this. Questions 2, 4, and 6 were the most important. When asked to list three things students could do as a teenager to help the future of our environment, students’ responses included using less water and paper, turning off electronics like lights, cell phones chargers, and TV’s, walking or riding bikes more, and taking shorter showers. Many of these things were not even mentioned in the classroom. This showed me that students were able to take what they were learning from me and apply it elsewhere, especially at home, another way of reaching into our community.
By asking the same question on the pre and post questionnaires, I was able to compare the results and measure the difference. While eight answered yes to Question #4 on the pre-questionnaires, 15 of 15 answered yes on the post-questionnaire. This data indicates that students who took part in this research project changed. They went from thinking their actions were unimportant to voicing responsibility. To go a little further, when asked whether or not students would make an attempt to change their habits and if yes, how, total is 15 out of 15 students answered yes and made pledges to do things like recycle more, use reusable water bottles, and develop green habits. One student wrote, “I pledge to be green. I will turn off my TV when I go to sleep, only use lights when it’s dark, take shorter showers, and stop buying plastic water bottles. I want to save the environment.” These pledges showed me that students were sincere and willing to make changes and commit to green practices. I also concluded from these results that their preconceived notions had changed, answering another one of my research questions.

**Challenges**

I was fortunate enough to encounter fewer challenges than I anticipated during the implementation of my research project. It was my assumption that students would be much more resistant to the green classroom since green practices typically require a few extra steps than traditional waste removal. This was not the case, however. In fact, it was more of a challenge for me to take the time to plan out the physical changes I would make to my classroom to encourage green behavior. I had to design and purchase the supplies for our recycling center. With my small classroom, I also had to create space for the recycling center by eliminating a valuable storage rack. It proved to be a smart decision because with recycle bins more prominent and conveniently located than
garbage cans, students were more likely to recycle. I would not have done this differently and I will keep things the way they are for the rest of the year and in the future since they have proven to work.

The other most notable challenge that I encountered was with the previously mentioned Chris Jordan photography project. Since the students were mostly not engaged from the beginning, I would change my presentation of the project to students. I would do an activity before presenting Chris Jordan’s work to students. Perhaps a photo scavenger hunt to capture evidence of waste would get the students thinking properly before they had an image in their heads of what their final projects should look like. I would also plan this on a day where we could leave school grounds so there would be a variety of subject matter to choose from. Perhaps a day where would go on an outdoor excursion or a field trip would provide the students with enough variety to be more engaged in the project. Then Chris Jordan’s work could be introduced as an example of types of waste that could be captured. I plan on using this project again next year with the previously mentioned changes.

**Conclusion**

Running a green classroom proved not to be as big of a challenge as I thought it would be. The most important part was doing the research and planning so that I had taken all the proper measures to ensure success. Keeping the classroom green was easy because all the resources to do so were there. After a few rounds of sifting through and analyzing data, I came to some preliminary findings. First, it turns out that the students just needed a little push to take that extra step to become eco-conscious citizens. They had knowledge of the environment but needed reminders. In relation to that, their biggest
preconceived notion that was holding them back was the fact that they thought their own small efforts would not matter in the larger scheme of things. This was the main preconceived notion that I had to address. Additionally, the eco-art projects I chose to complete and the physical classroom changes that were made were appropriate curricula, strategies, and activities to help move students toward environmental consciousness. As the teacher, I learned that teaching through the lens of critical pedagogy can impact students and at the same, make me a better teacher.

The next chapter will further interpret these findings as well as discuss what I, as the teacher, learned from this research project. I will also make recommendations that I think would be beneficial to those considering similar research.
Chapter V: Conclusions and Recommendations

Introduction

Three semesters ago, I sat at a table in a classroom on the fourth floor with white cinderblock walls, stared into space, and wondered what it would be like to be the teacher of a green art classroom. Would it be possible? What would it look like? How would I do it? My research project has given me these answers. I set out to find out how the introduction of a campaign to raise environmental consciousness in a high school art classroom might impact art students and their artworks, other students in the school, and the local community. Also of significance was to investigate preconceived notions and opinions that the students held about the environment, how those preconceived notions developed, how they might change with the campaign, and what types of curriculum, strategies, and activities would be useful. Finally, I wanted to discover what I, as the teacher, could learn from researching and teaching about the environment in my art classes. As a participant observer in my own classroom, I saw things first hand and used my knowledge and expertise to interpret what I was observing rather than relying on interviews (Merriam, 2009, 119).

A Well-Received Change

Based on the positive responses from students and community members throughout the project, their willingness to commit to green practices, and the changes to the preconceived notions of students, I conclude that this research project instituted a well-received change in my art classroom. Overall, this project impacted students, their artwork, others in the school, and our community in a positive way. It got them thinking and most importantly, making pledges to change. The change was so well received that I
plan on keeping the changes made to the classroom. We will expand into other areas of the art curriculum beyond eco-art, but the physical classroom improvements will remain. They have become part of our daily classroom life and I could not be more pleased with that result. More research would be necessary to determine the long-term impact this campaign had on students, but I feel justified in saying that it was successful in the time I had to complete the implementation.

More Reflections

As the teacher, I learned a great deal from this research project. Through the lens of critical pedagogy, I discovered that I have the power to take a concept all the way from a small idea to a full-blown campaign to provoke change. I also discovered that I have more of an impact on students than I thought. They listened, cared, and worked hard toward the goal of a green classroom and I respect their dedication to a concept that was not theirs to begin with, but that they adopted with open arms.

I encourage all those who read this master’s project to take initiative and make your own small changes. Maybe you are a mother or father who wants the environment to be a safe place for your children to live. Maybe you are a student who wants to set an example for your peers. Or maybe you are a teacher who wants to educate and inform young minds like I did. According to Monchinski (2008) and in keeping with critical pedagogy, when we don’t question the status quo – whether our questioning is to criticize or bolster it – we are tacitly endorsing it. Regardless of your situation, there is something you can do to be an eco-conscious citizen. First, and most importantly, make recycling easy and convenient. A well-placed recycle bin can make all the difference. By eliminating any extra steps recycling might take, the likelihood of doing so will increase
greatly. Second, become knowledgeable about the environment and share that knowledge with others. When I shared statistics about the environment with students, they were shocked and immediately felt they needed to be more eco-conscious. Know the problems the environment is facing and what you can do to help. Maybe you can ride your bike to work, or grow your own vegetables, put your water in a reusable container, or stop at a local coffee shop instead of a chain. If everyone started with one small goal, it would have one vast impact.

Another important recommendation to any teacher considering implementing this type of research project in a classroom is that you are the ultimate model of eco-conscious. It is imperative to the success of the project that you consistently set a good example for the students. If they see you slack off or start to get lazy, they will assume that it is okay too. They are watching you and learning from you, even when you do not think they are. The best example I have of this is when one of my students broke our new green classroom pledge only a week into the school year. It was a class of about 10 students and one student who was working in her sketchbook would rip out a whole page each time she made a mistake. After about 30 minutes and 10 pages ripped out, I watched her as she crinkled them into a ball, got up, walked past the recycle bin and threw them in the garbage can. She did not see me watching her as she went back to her seat and continued with the assignment. I had two choices: I could ignore it and hope that next time she would recycle or I could make an example of her indiscretion. Given my rapport with this particular student, I decided to use her as an example. I picked up the garbage can, walked to her table, and set it on the table in front of her. This got everyone’s attention, including hers. She stared at me for a moment and finally said,
“What?” I said back to her, “After all we have been talking about, you walked directly past the garbage can with a wad of paper and threw it in the garbage.” She responded, saying, “I’m so sorry. I completely forgot! I won’t do it again!” She stared up at me, hoping I would say “OK!” and turn around but I continued standing there. As serious as I could be, I said “Take it out.” She peered into the mostly empty garbage can with a few food scraps and most notably, a banana peel and said, “Seriously?” I said, “Seriously.” She looked around the room at her peers, then back at me, plunged her hand in, and pulled out the papers. I said, “You know where they go.” She got up and put them into the recycle bin and class went on as normal. Had I not addressed this situation immediately when it occurred, it could have negatively impacted my whole project. This showed students I was serious and would not accept laziness. I believe this set the tone for the whole research project.

I had to make a personal commitment to green living before bringing it to my students. My husband and I adopted it at home and it became part of our everyday lives. If I had gone into this only half-heartedly, students would have picked up on it and perhaps not put so much effort into it. Commit yourself before asking others to commit.

Recommendations

After completing this research, there are a few recommendations I would give to anyone considering replicating this model of research. In my early stages of planning for this master’s project, it became clear that it would be beneficial to have more classroom time in which to conduct and record the results of running a green classroom. A full school year where more eco-art projects could be added would have been ideal. This would also allow for further investigation into student responses to the theme of eco-
consciousness. For example, would they get lazy with green practices after an extended period of time? Would they lose interest in eco-art? I believe the research would have been stronger with these additions. It would also have been beneficial to attempt this research in a larger, more diverse setting. One weakness of this research is that it came from a small group of 15 students. It is possible that the results would have been different in a different setting. Finally, I believe that student interviews would have been a valuable supplement to the other methods of data collection. While I attained written results from the students through the questionnaires, it would have been interesting to interview them to find out their in-depth opinions of what it was like to learn in a green classroom setting. As researchers continue to show interest in exploring this area, my hope is that the number of green classrooms will increase, leading to more widespread adoption of eco-conscious living.

**Conclusion**

Green living is not just a trend. It is essential to our futures and the futures of our children. In accordance with the objectives of critical pedagogy, I used this project to raise concern and question the status quo within our school. By reaching students at an early age before they develop bad habits, I believe teachers can institute change through a lens of critical pedagogy. If we were lucky enough that other students responded and rose to the occasion as my students did, it could be a powerful thing. As Margaret Mead said, "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has." (brainyquote.com). If one small group of 15 high school students can create change in a community, so can you. All it takes is a good plan and little hard work. I am humbled by the willingness of my students to adopt
this project. I am grateful to them for allowing my passions to spill over into the classroom. They have inspired me to keep paying it forward and remain fixed on my continuous path toward eco-conscious living.
References


Appendix A: Visual Abstract

“The Overarching Limbs:” ROL

Critical Pedagogy
Social Issues
Community
Environmental Consciousness and the Role of Schools
Environmental Consciousness and the Role of Art Education
Building Ecological Stewardship

“The Branches:” Data Collection:
- Questionnaires
- Field Notes
- Student Artwork
- Reflections

“The Leaves:” Research Findings:
- Students were environmentally aware but needed a little push and reminders to act in a more eco-conscious way.
- The preconceived notions of students changed with this campaign. They learned that small efforts can yield high results.
- Modeling at school impacted our community.
- I had focused attention on my students through watching and listening more than I had in the past. Students respected me for this attention.
- I, as the teacher, was able to change my classroom into a green classroom by implementing the project.

“The Trunk:” Research Questions

How might the introduction of a campaign to raise environmental consciousness in a high school art classroom impact art students and their artworks, other students in the school, and the local community?

What are some preconceived notions that the students hold about the environment and culture?

How might these preconceived notions change with this campaign?

What kind of curriculum, strategies, and activities might be used to help students move toward environmental consciousness?

What can I, as the teacher, learn from researching and teaching about the environment in my art classes?

“The Root of the Problem:” Problem Statement

The problem that drives my research effort is that there is a deficiency of specific suggestions for how an art educator might actually integrate environmental consciousness into the art curriculum.
Appendix B: Letter of Assent

Dear Parents/Guardians,

I am writing this letter to ask your permission for your child to be a part of a special art study this coming school year. As part of my Masters project in Art Education at Buffalo State College, some of my art classes will be introduced to a theme of developing environmental consciousness through studies in visual art.

The goal of my research is to investigate the question, “How might the introduction of a campaign to raise environmental consciousness in a high school art classroom impact art students and their artworks, other students in the school, and the local community?” Your child will have the opportunity to experience a variety of art materials and projects while learning about significant artists, important art techniques, and environmentally responsible art practices.

Fictitious names will be used throughout the study to protect your child’s privacy. Your child has the right to withdraw from this study at any time, which means their words and images will not be documented in my final report for the study, though they will continue to take part in normal art room activities. Their artwork will be photographed for me to be able to analyze their creations later. Everything created for this research project is for educational purposes and will be kept confidential.

I appreciate your time and willingness to help me in my professional development. Thank you very much for your help. If you have any questions, please do not hesitate to contact me at (716) 825-8796, ext. 412 or jlicata@mtmercy.org. Please sign your name below, and check one of the following:

☐ I give permission for my child, as well as all artwork created by them, to be photographed during the year in art class for use in this research project.

☐ I give permission for my child to take part in this research project, which includes participating in informal interviews (conducted by me) and completing anonymous questionnaires that document their opinions.

☐ I DO NOT want my child to participate in this research project.

Student Name (Print) ____________________________________________________________

Student Name (Sign) ____________________________________________________________

Parent/ Guardian Name (Print) ____________________________________________________

Parent/ Guardian Name (Sign) _____________________________________________________

Date ______________________________

Sincerely,

Mrs. Jennifer Licata

*If you are unable to reach a member of the research team and have general questions, or you have concerns or complaints about the research study, research team, or questions about your rights as a research subject, please contact Gina Game, IRB Administrator, SUNY Research Foundation/Buffalo State at (716) 878-6700 or gameg@rf.buffalostate.edu; gameg@rf.buffalostate.edu.
Appendix C: Permission Letter from Principal

Dear Principal,

I am writing this letter to ask your permission for our students to be a part of a special art study this coming school year. As part of my Masters project in Art Education at Buffalo State College, some of my art classes will be introduced to a theme of environmental consciousness through art.

The goal of my research is to investigate the question, “How might the introduction of a campaign to raise environmental consciousness in a high school art classroom impact art students and their artworks, other students in the school, and the local community?” Our students will have the opportunity to experience a variety of art materials and projects, while learning about significant artists, important art techniques and environmentally responsible art practices.

Pseudonyms will be used throughout the study to protect our student’s privacy. Students have the right to withdraw from this study at any time, though they will continue to take part in normal art room activities. Everything created for this research project is for educational purposes and will be kept confidential. I appreciate your time and willingness to help me in my professional development.

☐ I give permission for you to conduct this research study with our students
☐ I DO NOT want our students to participate in this research project

Please print, sign and date the line below.

Principal Signature _____________________________________________________

Date ______________________________

Sincerely,

Mrs. Jennifer Licata

*If you are unable to reach a member of the research team and have general questions, or you have concerns or complaints about the research study, research team, or questions about your rights as a research subject, please contact Gina Game, IRB Administrator, SUNY Research Foundation/Buffalo State at (716) 878-6700 or gameg@rf.buffalostate.edu; gameg@rf.buffalostate.edu.
Appendix D: Anonymous Student Questionnaire

Anonymous Student Questionnaire – Environmental Consciousness
(Adapted from: http://jalt.org/global/30Sur.htm)

1. Our environment is:
   a. in good shape
   b. in some trouble but can be saved with a little effort
   c. in bad shape but a lot of effort might save it
   d. in such bad shape little can be done about it

2. Which of the following do you feel is the worst environmental problem facing the planet?
   a. ozone depletion
   b. toxic waste
   c. global warming
   d. water pollution
   e. air pollution
   f. deforestation

3. Who are the worst polluters?
   a. industries
   b. governments
   c. individual people

4. Who should be responsible for making sure we have a healthy environment?
   a. industry
   b. government
   c. environmental groups
   d. individuals

5. Is the current concern over the state of the environment justified? (Do you think it is really as bad as some people say it is?)
   a. yes
   b. no
   c. not sure

6. Given the current concern about the environment, how would you describe your future?
   a. bright and hopeful
   b. challenging
   c. depressing
   d. uncertain
7. The single most important thing that will make sure the environment is healthy for future
generations is if:
   a. the polluting industries shut down, even if people lose their jobs
   b. new technologies can be found to solve our problems
   c. people learn to live with less and be more efficient users of energy and materials
   d. we find a way to have economic development continue in a way that minimizes pollution

8. I believe my health has already been affected by pollution.
   a. yes
   b. no
   c. maybe
   d. haven't thought about it

9. By the time you are 30 years old, the environment will be:
   a. destroyed
   b. better than it is now
   c. worse than it is now
   d. about the same as it is now

10. Sustainable development means:
   a. development that provides the most jobs
   b. development that will save the environment even if it means lots of people will lose their jobs
   c. development that takes into consideration the economic and environmental needs of future generations
   d. other: ___________________________________________________________

11. What is the best way to promote environmental awareness in your community?
   a. published photographs (magazines, newspapers, websites) displaying environmental concerns
   b. various public artwork in high traffic areas
   c. protests
   d. news
   e. other: ___________________________________________________________

12. Do you think it is possible for individuals alone to make a difference in the environment by making small changes such as recycling?
   a. yes
   b. no

13. Is recycling worth the extra trouble?
   a. yes
   b. no
Appendix E: Anonymous Follow-Up Student Questionnaire

Anonymous Follow-Up Student Questionnaire – Environmental Consciousness
(Adapted from: http://jalt.org/global/30Sur.htm)

1. Our environment is:
   a. in good shape
   b. in some trouble but can be saved with a little effort
   c. in bad shape but a lot of effort might save it
   d. in such bad shape little can be done about it

2. What are 3 things you believe you can do as a teenager to help the future of our environment?
   1. ________________________________
   2. ________________________________
   3. ________________________________

3. In school, I can recycle:
   a. cans
   b. plastic bottles
   c. paper
   d. cardboard
   e. all of the above

4. Do you think it is possible for individuals alone to make a difference in the environment by making small changes such as recycling?
   a. yes
   b. no

5. How have your thoughts about the environment changed since we have started discussing it in class?
   ___________________________________________
   ___________________________________________

6. Will you make an attempt to change your habits?
   a. yes
   b. no

   6.1. If yes, how will you do so?
Appendix F: Anonymous Community Questionnaire

Anonymous Community Questionnaire – Environmental Consciousness
(Adapted from: http://jalt.org/global/30Sur.htm)

1. Our environment is:
   a. in good shape
   b. in some trouble but can be saved with a little effort
   c. in bad shape but a lot of effort might save it
   d. in such bad shape little can be done about it

2. Who are the worst polluters?
   a. industries
   b. governments
   c. individual people

3. Do you recycle?
   a. yes
   b. no

4. Do you think it is possible for individuals alone to make a difference in the environment by making small changes such as recycling or purchasing energy efficient appliances?
   a. yes
   b. no

5. After seeing what young people in your community are doing in this display today, does it make you second-guess some of your own treatment of the environment?
   a. yes
   b. no

5.1. If yes, how will you make an attempt to change your habits?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
Appendix G: Photo Analysis Checklist

Photo Analysis Checklist

Project: _____________________________________________

Student Artwork:

☐ Student completed project according to assignment
☐ Student used green materials
☐ Project took inspiration from key eco-artist discussed in class

Student Engagement in Project:

☐ Assignment was taken seriously
☐ Student had passionate response to eco-conscious theme
☐ Project had an impact on the student
☐ Process of project from start to finish revealed an understanding of the project
Appendix H: Photographs of Bottle Cap Murals

Based on Eco-Artist Michelle Stitzlein (below):

Student Artwork (below):

(Artwork A)  (Artwork B)
Appendix I: Photographs of Evidence of Waste Triptychs

Based on Eco-Artist Chris Jordan (below):

Student Artwork (below):
Appendix J: Photographs of Eco-Art Installations

Based on Eco-Artist Andy Goldsworthy

Student Artwork (below):
Appendix K: Chris Jordan Photographic Evidence of Waste Lesson Plan

Course: Advanced Digital Media  
Grade Level: 11-12  
Title of Lesson: Photographic Evidence of Waste  
Teacher: Mrs. Licata  
Projected Dates: 9/19-9/23

Overview and Objectives

Enduring Idea/Question: How can a photograph document the destruction of our planet? Can a photograph encourage people to be more environmentally conscious?

Prior Knowledge:
- Environmental statistics
- Chris Jordan’s work
- What is a triptych?

Warm-Up/Intro: Students will be given an anonymous questionnaire having to do with environmental statistics at the very start of the project. Students will take out homework, which was to capture evidence of waste in a cell phone photo from the weekend before. Students will share these with the class.

The student will…
- become educated about the state of our environment
- learn what they can do in our school and community to make small green changes
- document evidence of waste and destruction in our school and community
- print their photographs and make them public to spread the word about their findings
- use social media to spread a positive message

Closure/Wrap-Up: Students will take a follow-up questionnaire to see if their opinions have changed from prior to the project. The students will promote environmental consciousness by displaying their artwork at a public school event (Open House). The students will post their projects to Tumblr.com.

Assessment: Teacher observation; Major Project Rubric (100 points); Questionnaire results (no grade given - used to gauge effectiveness)

NYS Standards Covered

Standard 1: Creating, Performing, and Participating in the Arts: Students will actively engage in the processes that constitute creation and performance in the arts and participate in various roles in the arts.
Standard 2: Knowing and Using Arts Materials and Resources: Students will be knowledgeable about and make use of the materials and resources available for participation in the arts in various roles.

Standard 3: Responding to and Analyzing Works of Art: Students will respond critically to a variety of works in the arts, connecting the individual to other works and to other aspects of human endeavor and thought.

Standard 4: Understanding the Cultural Contributions of the Arts: Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of the past and present society.

Background

Artists/Artworks Discussed: Chris Jordan photography

Art Materials Required: Cameras, Computers, Internet, Photoshop CS5, photo paper, mounting paper, glue sticks, paper cutters

Body of the Lesson

Day 1:

1. After warm-up, teacher and students will view and discuss the work of Chris Jordan (Is it important? Does it reveal anything significant about our culture? Does it have any meaning/impact? Student opinions of work). Teacher and students will then search school and school grounds for evidence of waste. We will search classrooms, the dining hall, the gym, the immediate grounds, and anywhere a faculty or staff member allows our presence. Students will return to classroom, upload, and save.

2. Students will act as photojournalists for the remainder of the day and be asked to carry a camera to all their classes and lunches in order to continue documenting.

*Homework: Shoot photos for the remainder of the project before next class at home, on the bus, while walking, and at any other public place.

Day 2:

1. Students will upload footage for teacher review. Once approval is received, students may start post-processing and putting together their triptych.

*Homework: Blog Post - Did you start to notice more evidence of wastefulness once you were looking for it? Were you surprised at how much waste and pollution you did not notice before being assigned this project?

Day 3: Project due at halfway mark of class!
1. Final touches - post-process and print.
2. Students will mount triptychs and as a class, we will decide the best place to hang them in the school for maximum impact. Soon later, the artworks will be on display with our classroom “Go Green” pledge at the school’s annual Open House. Community questionnaires will accompany them so we can attempt to gauge their effectiveness on members of our community. This will be done in conjunction with other environmental projects from different classes. Students will post projects to Tumblr.com.
Appendix L: Chris Jordan Photographic Evidence of Waste Handout

**Advanced Digital Media - Major Project #1**
Photographic Evidence of Waste (100 Points)

Chris Jordan is an artist based in Seattle, Washington who is best known for his large scale works depicting mass consumption and waste, particularly garbage. He has been called "the 'it' artist of the green movement. His passion for conservation and awareness has brought much attention to his photography in recent years. Jordan uses everyday commonalities such as a plastic cup and defines the blind unawareness involved in American consumerism. His work, while often unsettling, is a bold message about unconscious behaviors in our everyday lives, leaving it to the viewer to draw conclusions about the inevitable consequences that will arise from our habits.

Assignment: Create a triptych inspired by the 3 above and the artwork we viewed during class that exemplifies some evidence of waste and destruction. You are welcome to choose your own subject but it should be roughly based Chris Jordan’s themes of mass consumption, lack of recycling, and wastefulness. The triptychs will be printed on 3 separate sheets of 8 ½ x 11 photo paper and mounted. Photograph your final product, post it to Tumblr.com, and label it.

These projects will be publicly displayed at this year’s Open House so that we can get an opinion from the public.

We will explore locations both inside and outside the school together for subjects to shoot and then the rest should be shot by you outside of school.

*Project Due Date (subject to change):* Halfway through class 9/23
Appendix M: Michelle Stitzlein Bottle Cap Murals Lesson Plan

Course: Studio in Art One
Grade Level: 9
Title of Lesson: Michelle Stitzlein Bottle Cap Murals
Teacher: Mrs. Licata
Projected Dates: 9/19-10/3

Overview and Objectives

Enduring Idea/Question: How can recycled bottle caps be used to create art?

Prior Knowledge:
• Elements of Art
• Green art room practices
• Hot glue guns
• Michelle Stitzlein, Eco-Artist

Modifications: None Necessary

Warm-Up/Intro: Example teacher product of mini bottle cap art will be passed around to engage the students.

The student will…
• run a bottle cap drive to collect materials
• work in group of 3-4 to create a design for the mural
• sift through materials and select those that will work for their mural
• use cardboard to create a surface for the mural
• use hot glue to place bottle caps in an aesthetic manner

Closure/Wrap-Up: Students will photograph completed bottle cap murals, upload to blog on Tumblr.com, and write a short summary. Students will also select an appropriate location to permanently install their murals.

Assessment: Teacher observation; Major Project Rubric (100 points) - each student will receive a separate grade since this is a group project.

NYS Standards Covered

Standard 1: Creating, Performing, and Participating in the Arts: Students will actively engage in the processes that constitute creation and performance in the arts and participate in various roles in the arts.

Standard 2: Knowing and Using Arts Materials and Resources: Students will be knowledgeable about and make use of the materials and resources available for participation in the arts in various roles.
Standard 3: Responding to and Analyzing Works of Art: Students will respond critically to a variety of works in the arts, connecting the individual to other works and to other aspects of human endeavor and thought.

Standard 4: Understanding the Cultural Contributions of the Arts: Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of the past and present society.

Background

Artists/Artworks Discussed: Various artworks by Michelle Stitzlein compiled in teacher-made Prezi.

Art Materials Required: Cardboard, hot glue, plastic bottle caps, exacto knives

Body of the Lesson

Day 1:

1. After warm-up, students will view teacher-made Prezi with various Michelle Stitzlein artworks and examples.
2. Students will create a planning sketch and come up with a theme for their mural.
3. Students will begin to sift through bottle caps for ones that will work for their projects.

Day 2:

1. Students will continue selecting materials for their murals. Teacher will review planning sketches with each group and approve or give suggestions.
2. When sketches are approved, students will be given cardboard boxes to cut down and shape to an appropriate size for their specific murals.
3. Students will prime and paint cardboard an appropriate color relative to their design.

Day 3:

1. Students will break into groups immediately and sketch out their plans on their cardboard.
2. Students may begin gluing down bottle caps.
3. Teacher will continuously meet with each group to check on progress and give suggestions.

Day 4:
1. Students will break into groups immediately and continue work on bottle cap murals
2. Teacher will continuously meet with each group to check on progress and give suggestions.

Day 5:

1. Students will break into groups immediately and continue work on bottle cap murals
2. Teacher will continuously meet with each group to check on progress and give suggestions.

Day 6: Projects due at the end of class!

1. Students will break into groups immediately and continue work on bottle cap murals
2. Teacher will continuously meet with each group to check on progress and give suggestions.
Appendix N: Michelle Stitzlein Bottle Cap Murals Handout

**Art One – Major Project #1**

Bottle Cap Murals (100 Points)

“Eco Art” is a contemporary form of environmental art created by artists who are concerned about local and global environmental situations, and who take art making to a functional format.

*Some environmental art:*

- Interprets nature, creating artworks to inform people and raise awareness about nature and its processes, and/or about environmental problems we face
- Is concerned with environmental forces and materials
- Re-visions the human relationship to nature, proposing and inspiring new ways for people to co-exist with their local environments
- Reclaims or restores damaged environments artistically

*Your Assignment:* In groups of 3-4, design and create a bottle cap mural in the style of Michelle Stitzlein. Use cardboard, plastic bottle caps and hot glue only. Your bottle caps should fill the surface. You may cut the cardboard down to any size and shape you would like and also paint it any color appropriate to your mural design.

**You will have 5-6 studio days to complete these murals!**
Appendix O: Andy Goldsworthy Eco-Art Installations Lesson Plan

Course: Studio in Art One
Grade Level: 9
Title of Lesson: Andy Goldsworthy Eco-Art Installations
Teacher: Mrs. Licata
Projected Dates: 10/5-11/1

Overview and Objectives

Enduring Idea/Question: How can I use natural materials to create art?

Prior Knowledge:
- Elements of Art
- Green art room practices
- Hot glue guns
- Andy Goldsworthy, Eco-Artist

Modifications: None Necessary

Warm-Up/Intro: Students will be asked what they think the environment is and what it consists of. Discuss.

The student will...
- Students will be able to identify the five elements of art in visual work i.e. line, shape, value, texture, and value.
- Students will defend/discuss their constructions using the five elements of art.
- Students will discover relationships between the environment and their creation i.e. light and setting.
- Students will use Photoshop to enhance the visual elements in their work.
- Students will print their work.

Closure/Wrap-Up: Students will photograph completed installations, upload to blog on Tumblr.com, and write a short summary.

Assessment: Teacher observation; Major Project Rubric (100 points) - each student will receive a separate grade since this is a group project.

NYS Standards Covered

Standard 1: Creating, Performing, and Participating in the Arts: Students will actively engage in the processes that constitute creation and performance in the arts and participate in various roles in the arts.

Standard 2: Knowing and Using Arts Materials and Resources: Students will be knowledgeable about and make use of the materials and resources available for
participation in the arts in various roles.

**Standard 3: Responding to and Analyzing Works of Art:** Students will respond critically to a variety of works in the arts, connecting the individual to other works and to other aspects of human endeavor and thought.

**Standard 4: Understanding the Cultural Contributions of the Arts:** Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of the past and present society.

**Background**

**Artists/Artworks Discussed:** Various artworks by Andy Goldsworthy compiled in teacher-made Prezi.

**Art Materials Required:** Cameras, Photoshop

**Body of the Lesson**

**Day 1:**

1. After warm-up, students will view teacher-made Prezi with various Andy Goldsworthy artworks and examples.
2. Students will create a planning sketch and come up with a theme for their installation.
3. Students will create a materials list.

**Day 2:**

1. Class will take planning sketches outside to begin installations immediately. Walk over to park.
2. Students will break into groups and begin collecting the items listed on their materials list.
3. Students will choose a location and begin to create installations. Teacher will circulate from group to group to assist and give feedback.
4. Once complete, students will photograph installations.
5. Return to school.

**Day 3:**

1. Students will use Photoshop CS5 to enhance photographs.
2. Students will upload photos to blog on Tumblr.com and write a short summary.
3. Students will print photographs.
**Appendix P: Andy Goldsworthy Eco-Art Installations Handout**

**Art One – Major Project #2**  
Eco-Art Installations (100 Points)

Andy Goldsworthy is a British sculptor, photographer & environmentalist producing site-specific sculpture and land art situated in natural and urban settings. He lives and works in Scotland.

“I enjoy the freedom of just using my hands and "found" tools--a sharp stone, the quill of a feather, thorns. I take the opportunities each day offers: if it is snowing, I work with snow, at leaf-fall it will be with leaves; a blown-over tree becomes a source of twigs and branches. I stop at a place or pick up a material because I feel that there is something to be discovered. Here is where I can learn.” –Andy Goldsworthy

*Your Assignment:* In groups of 2 or 3, design and install your own Andy Goldsworthy inspired creation. Begin with a planning sketch and a detailed materials list. You will only have 1 class block to complete this be sure to be fully prepared with a good plan! All the materials must come completely from nature – no glue, paint, etc. You will photograph your final artwork since these are temporary installations that we will be unable to save!

**The project is worth 100 points per person in the group!**