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Constructing Planetary Citizens Through Ecopedagogy in U.S. Social Studies Standards

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LOYOLA UNIVERSITY CHICAGO

CONSTRUCTING PLANETARY CITIZENS

THROUGH ECOPEDAGOGY

IN U.S. SOCIAL STUDIES STANDARDS

A THESIS SUBMITTED TO

THE FACULTY OF THE GRADUATE SCHOOL

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MASTER OF ARTS

PROGRAM IN CULTURAL AND EDUCATIONAL POLICY STUDIES

BY

MADELINE A. RAINEY

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LIST OF DEFINITIONS

Anthropocentrism- the tendency for human beings to regard themselves as the central and most significant entities in the universe, or the assessment of reality through a human-centered perspective (Cao, 2015).

Climate Change- a change in the state of the climate that can be identified (e.g., using statistical tests) by changes in the mean and/or the variability of its properties, and that persist for an extended period, typically decades or longer (IPCC, 2021).

Climate Change Education (CCE)- education that aims to address and develop effective responses to climate change.

Cosmology- a story of the universe and the place of the Earth and human beings in the universe at large (Best & Kellner, 2001, p. 134).

Development- growth of the economy along a path towards high mass consumption.

Environment- we commonly restrict environmental issues to a widely accepted set of concerns about human health and activity, ecology, and natural resources, the "environment" can mean literally everything there is (Harvey, 1996).

Environmental Education (EE)- a process that allows individuals to explore environmental issues, engage in problem-solving, and take action to improve the environment (EPA, 2020).

Ecocentrism- a nature-centered, as opposed to human-centered (i.e., anthropocentric), a system of values (Cao, 2015).

Ecopedagogy- is a critical theory that critiques environmental education for inaccurately presenting the relationship of social, economic, and environmental oppressions.

Environmental Violence- includes (a) the violence between people(s) over natural resources; (b) environmental policies that can be violent against people; (c) the secondary violence from the natural world as a result of human degradation of the earth, and (d) direct damage to the environment by humans

Environmental Justice- fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Environmental Literacy- understanding, skills, and motivation to make responsible decisions that consider his or her relationships to natural systems, communities, and future generation.

Ecoliteracy- understanding of the principles of the organization of ecosystems and the application of those principles for creating sustainable human communities and societies (Capra, 1997).

Ecological Literacy-the ability to understand the natural systems that make life on earth possible. It involves making informed decisions about the complex relationships involved in these systems.

Environmental Citizenship- the idea that we all should take responsibility for how we interact with the environment.

Epistemology- the study of the nature, origin, and limits of human knowledge.

Global Citizenship- the idea that one's identity transcends geography or political borders and that one's responsibilities or rights are derived from membership in a broader class: "humanity"

Global World Economy- The international spread of capitalism, especially in recent decades, across national boundaries and with minimal restriction to governments.

Hegemony- leadership or dominance, especially by one country or social group over others.

Planetary Citizenship- a group of principles, values, attitudes, and habits that reveal a new perception of the Earth as a single community (Gadotti, 2008, p. 23).

Modernization- a model of a progressive transition from a 'pre-modern' or 'traditional' to a 'modern' society

Neoliberalism- a political approach that favors free-market capitalism, deregulation, and reduction in government spending.

Sustainability- avoidance of the depletion of natural resources in order to maintain an ecological balance.

Sustainable Development- development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Cao, 201

ABSTRACT

The world is in the age of the Anthropocene, where humans are impacting the environment to disastrous effects. The capitalist economy, promoting neoliberal policies of mass consumption, has exacerbated the world's environmental deterioration and social inequity. The rights and responsibilities people hold have been rapidly changing with the fourth industrial revolution. Globalization and Information and Communications Technology (ICT) have further expanded notions of citizenship. While there have been numerous attempts to bring the environment into schools, it has not emphasized what this crisis deserves. Ecopedagogy, as a critical theory, explicitly examines the interplay between environmental and social problems and challenges students to be planetary citizens who acknowledge the value in all humans and non-human things. This thesis examines the extent to which ecopedagogy is taught in the construction of citizenship through an analysis of high school social studies standards in the United States. To answer this question, a qualitative content analysis was conducted to identify the prevalence of ecopedagogies in social studies standards. The findings indicate states are teaching some aspects of ecopedagogy but not to the significance necessary to address the environmental challenges facing the world or to develop planetary citizens.

CHAPTER ONE

INTRODUCTION

It is strikingly apparent that the world is facing massive challenges on several social and environmental fronts and requires transformation. Wealth inequalities, racial injustices, ecological exploitation, unstable governments, food insecurity, gun violence, and COVID-19 compose just some of the realities of life on planet earth today. So common is this violence and tragedy that solutions to these problems can feel insurmountable and leave people in a state of hopelessness. Indeed, unless these issues are experienced first-hand, people can be indifferent to many of these problems.

We live in the age of the Anthropocene, where humans contribute to environmental destruction and advance climate change. This has been well documented and encompasses nearly every area of life (Albert, 2020). Regarding environmental challenges, there has been an increase in the intensity of severe weather and weather-related disasters, plant and animal extinction, rising ocean levels, and air and water pollution, among others within the last few years (IPBES, 2019; IPCC, 2021). As a result, humans face health and security issues in their present lives due to these changes, such as ingesting unsafe drinking water, flooding, an increasing number of climate refugees, wildfires, smog, chemical ingestion, and many other challenges (IPCC, 2021). As inhabitants of the earth, all humans suffer from a deteriorating environment. However, the burden is not evenly distributed to all people and ecosystems. In fact, the effects of environ-mental exploitation are well linked to other forms of oppression (Hornborg, 2009; Wells, 201

One recent study found that the number of trees in a city neighborhood is connected to people's wealth. Neighborhoods with more money have more trees and greenery within the city (Leahy & Serkez, 2021). Environmental inequality extends to many areas outside the United States as well. Countries in the Global North, especially the U.S., contribute to climate change and greenhouse gas emissions, while countries in the Global South feel the effects to a greater extent (Mendelsohn et al., 2006; Pardikar, 2020). More broadly, the Global South faces a disproportionate burden of a deteriorating environment from extensive land use for resource extraction and exportation to the Global North (Mendelsohn et al., 2006). Additionally, countries in the Global South have debt tied to structural adjustment programs, hindering their ability to combat climate change (Barca, 2014).

Almost all aspects of the environment have been taken control of by humans. People construct canals, organisms are genetically modified, some livestock never venture outdoors before they are slaughtered, water is privatized, and forests are knocked down in the name of development (Escobar, 1992). This manipulation of nature for human use has devastating effects on both the environment and humans (Crutzen, 2006; Lewis & Maslin, 2015; Schlottmann et al., 2017). There has been an increase in concern for the environment due to the impact humans face with a changing environment. However, this thinking has proved ineffective because humans are generally only concerned when the environment affects them on a personal level. Additionally, people have not significantly improved climate change, and mass consumption has continued to persist worldwide (Escobar, 1995). Therefore, humans need to see their place within nature, not above or outside of it. This requires not only behavioral change but attitudinal change as well.

While rising living standards and access to more material goods do not always have disastrous results, the current path clearly displays the fragility of both humans and the environment. Environmental disasters are starting to affect rich countries more than ever; perhaps now, the urgency to reconstruct humans' relationship with the environment will be more pronounced (IPCC, 2021). Global solutions are required to solve these global challenges of climate change and environmental exploitation. This requires the collaboration and commitment of nations, international organizations, transnational corporations (TNCs), communities, and individuals. However, in order to understand the role humans have on the environment, one must first acknowledge the rights and responsibilities to the environment. In other words, humans need to reassess their role as citizens. Citizenship is most often taught in social studies classes in the U.S.

Although different modes of education on the environment have been present over time, none of them instilled the skills and values in students to solve environmental problems, due to the fact that the environment remains a top concern for many nations and the world at large today. Ecopedagogy takes the most critical lens to understand the way environmental and social problems are interrelated. Ecopedagogy points to the necessity of self-reflecting and deconstructing practices that perpetuate environmental inequalities. In this way, students gain planetary consciousness to recognize the value of the environment in its own right outside of humans. Ecopedagogy then works to transform society to recognize these fundamental principles (Misiaszek & Torres, 2019; Misiaszek, 2020). Ecopedagogy, at its core, emphasizes the interconnected nature of environmental and social ills; the two are inseparable aspects (Misiaszek & Torres, 2019; Misiaszek, 2015; 2016; 2020). To address environmental problems

without examining the social impact is insufficiently addressing any ecological issue. In this research, ecopedagogy will be used as a conceptual framework to provide structure for how planetary citizenship and environment consciousness could be taught when teaching the environment in social studies education.

Problem Statement

The present education system in the U.S. is perpetuating environmental problems through a lack of emphasis on the role of the environment in citizenship construction. Therefore, students in the U.S. often develop into citizens with an entitled sense of superiority over the environment. This sense of entitlement allows individuals to prioritize monetary gains at the expense of other people and the environment. This research seeks to understand what students are expected to learn about their role and responsibility as citizens within the greater ecosystem and planet through an analysis of state standards. While students may become environmentally conscious in school, not enough people are taking action to change the present workings of systemic exploitation. Therefore, this study seeks to analyze how the environment is presented and prioritized in high school social studies standards in an attempt to document where ecopedagogy is being implemented and where it is missing from the state standards. This data will offer insight into what states and regions require students to understand, as well as question the relationship between citizenship and the environment, and where further improvement can be made in teaching ecopedagogies.

Purpose of Study

This research seeks to answer the following question: What is the prevalence of ecopedagogies in the construction of citizenship in U.S. high school social studies standards?

Additional questions that will be addressed are: How does the United States construct planetary and environmentally conscious citizens? What is the relationship between citizenship and the environment in the social studies standards? What differences are there by state and region in teaching ecopedagogy in the social studies standards?

This thesis will identify the tenants of ecopedagogy and examine how and to what extent ecopedagogies are taught when learning about the environment as well as what roles humans have as citizens in their relationship with the rest of the environment as stated within the social studies standards. The United States does not have a single, uniform national curriculum for all grades and subjects of social studies curriculum. Therefore, I have selected twelve state standards to analyze. Three states were selected from each of the four major regions in the U.S. to serve as a representative sample of the U.S. Typical classes that discuss the environment and how humans interact as citizens with it most explicitly are social studies classes including, civics, politics, government, geography, history, and economics. This study will determine areas where ecopedagogy is present in state high school social studies standards. I have chosen the high school level as this is the age in which students are starting to gain independence, take action on their own, and will soon gain the additional rights and responsibilities when they reach adulthood to participate in civic life.

Research on different forms of environmental education is ample and growing in prominence; however, there is a need for more research on ecopedagogy and its place in the social studies standards (Bromley et al., 2011). One related study documents how climate change is presented within social studies and science standards (Katz et al., 2020). While this data helps see the number of states that include different principles of environmental education and related

concepts, it lacks the in-depth analysis that this study offers in interpreting the language and relationship between citizenship and the environment. Further, this related study does not look at the implications of including or excluding environmental concepts in the subject areas (Katz et al., 2020). Another study looked solely at the national framework for social studies to see where the environment is included or excluded in different areas. This study offered suggestions on where the standards could be expanded to include more environmental concepts and how the teacher could apply environmental concepts to the present standards if not explicitly stated. This study lacked depth as it did not examine individual state standards (NAEE, n.d.). State standards are often based on the larger national framework; however, they are expanded on and adapted as the state sees fit. State standards show how educators apply the national framework to state-level standards.

Previous attempts to introduce environmental education in the classroom have not offered the changes necessary to combat the present challenges facing the world today, as this continues to be one of the world's biggest issues. Ecopedagogy provides a more critical and expansive version of environmental education that could provide students with a new understanding of the world and their place within it. If ecopedagogy was present within the social studies standards, the content standards would not be in question, but it may give insight into the disconnect between environmental mindedness and human behavior. Ecopedagogy asks questions about knowledge production and the interconnectedness of power dynamics in an environmental context (Misiaszek, 2020). The tenants of ecopedagogy make social studies classes a highly compatible place for the topics and skills of planetary citizenship to be investigated.

The thesis will first contain a background section discussing the intersection of social studies and the environmental movement. The background then discusses schools and their function in creating citizens. Next, key policies of environmental education are presented, followed by social studies standards. Finally, a brief overview of common and green citizenship theories is presented. The literature review discusses critical concepts of modernization, development, and globalization that have led to the current state of the Anthropocene. This is followed by the definition of ecopedagogy, its key tenants, benefits, and detriments. Next, the application of ecopedagogy in schools is laid out. Following this, the research methodology, data analysis, and findings are presented in the next chapter, along with my positionality and the limitations to the study. This is followed by a discussion, recommendations for future research, and conclusions.

Background

This background chapter will first discuss social studies education in the U.S. and its connection with the environmental movement. It will also cover an overview of a changing American perspective on the environment. This is followed by a brief overview of how schools function today and their purpose in creating citizens in social studies classes. Next, the chapter will discuss critical policies of environmental education. The following section will define social studies education, standards, and citizenship education. Finally, a brief overview of common citizenship and green citizenship theories will be presented.

The spark that brought forth the intersection of citizenship education and the modern wave of the environmental movement was the book *Silent Spring* written by Rachel Carson in 1962 (Rome, 2013). The emphasis of this book dealt with the consequences of chemical usage,

with a particular focus on DDT, and its impact on humans and the environment (Carson, 2002).

The book highlighted concerns over the use of pesticides running off farm fields and being

ingested through food and further awoke the American public to these invisible dangers (Rome,

2013; Stoll, 2012; Waddell, 2000). Two other books, *The Quiet Crisis*, published in 1963 by

Steward Udall, the secretary of the interior under President Kennedy (Carter & Simmons, 2010),

and *The Population Bomb* by Paul Ehrlich, further drew attention to environmental problems

(Rome, 2013).

Following the publication of these materials, the United States passed several

environmental regulations and established agencies to work towards protecting and preserving

the environment. Among the more prominent include, The Wilderness Act of 1964, The Species

Conservation Act of 1966, The Wild and Scenic River Act of 1968, The Solid Waste Disposal

Act of 1965, and The Clean Air Act of 1965 (Carter & Simmons, 2010). This legislation

highlights the growing concern for humans' relationship with the environment and recognition of

their negative impact. The 1970s were often called the "decade of the environment" due to the

increased awareness of environmental problems and the heightened initiative to solve them. The

era also brought forth an increase in environmental literature, educational centers, and programs

centered on the environment (Rome, 2013). Major legislative acts include the Clean Air Act of

1970, the National Environmental Policy Act of 1970 (NEPA), the Clean Water Act of 1972, and

the Endangered Species Act of 1973. In addition, the Environmental Protection Agency (EPA)

was established in 1970 (Rome, 2013). President Nixon also passed a series of environmental

measures; however, the progress of the environmental movement was nearly halted during

President Reagan's administration (Carter & Simmons, 2010). In the years following, there have

been significantly fewer laws and acts passed concerning the environment. Maher (1988) observes that knowing the present political system is essential to understanding environmental concerns. To grasp the nations' environmental decisions, one must recognize the political units and ties behind those actions, a concept central in ecopedagogy.

Another important aspect in furthering the modern environmental movement was the first national teach-in on the environment in 1970, also known as the first Earth Day. At the time, the U.S. was engulfed in protest and social movements concerning the Vietnam War, Civil Rights, and the Women's movement (Rome, 2013). This activism contributed to the success of the teach-in for the environment. This event, spearheaded by Senator Gaylord Nelson focused on student participation and agency to learn and address local environmental problems. In the years following, this day has been credited for sparking numerous environmental education programs and increasing community participation of various groups (Rome, 2013). All of these movements have influenced the American understanding of the environment and brought into question how to learn about and live with the environment, in other words, how to be an environmental citizen.

Education for Citizenship

In the United States, schools are responsible for fostering the understanding and development of citizenship. Societies continuously turn to schools as both a place of blame and hope for the future. Schools are places of great expectation to solve social ills and nurture the next generation to create a better future. Citizens place their youth in the hands of educators to teach them how to live in society; therefore, schools have great responsibilities. One of the earliest goals of education in the U.S. was to create future democratic citizens of the nation

(Kober & Rentner, 2020; Stratton, 2016). Citizenship and civics education is most explicitly

implemented today through the social studies curriculum.

In the U.S., the amount of time spent in schools learning about the environment is often

not prioritized as the environment is not given its own course, and other subjects that align with

the state and national goals take precedence (Ratvich, 2016). The climate crisis is not valued.

The subject is not given the importance or time to help students gain significant knowledge on

environmental issues. Nor do schools teach that climate change is unevenly produced,

distributed, and tightly connected to other inequalities (Misiaszek, 2020). Education on the

environment is often not prioritized in the standards and curriculum, nor is it part of standardized

assessments which dictate how schools spend instructional time (Kopnina, 2020). Further,

teachers report not feeling knowledgeable enough to teach topics relating to the environment.

This leaves little room for funding or time for teachers to incorporate the environment into

lessons (Hursh et al., 2015). David Orr argues,

> . . . education has long been a part of the problem, turning out graduates who were
> clueless about the way the world works as a physical system or why that knowledge was
> important to their lives and careers, while at the same time promoting knowledge of the
> sort that has fueled the destruction of ecologies and undermined human prospects (Orr,
> D. 2009, as cited in Misiaszek, 2020).

The typical school structure can make incorporating instruction on the environment difficult.

Students spend a lot of time inside, divided into separate rooms by age, in rows of desks, with

textbooks. Education on the environment typically involves learning directly from nature, is

experiential, and interdisciplinary (Carter & Simmons, 2010; Disinger et al., 1994; Hart, 2010;

Hursh et al., 2015; Omiyefa et al., 2015). Education on the environment comes in many forms

with different practices and objectives. The most prominent forms are: environmental education

(EE)[1], education for sustainability (EfS),[2] education for sustainable development (ESD),[3]

ecological education[4], climate change education (CCE)[5], outdoor education[6], place-based

education (PBE)[7], and ecopedagogy.[8]

Many of these educational models have been critiqued as unproductive to spark authentic

and lasting change (Dimick, 2014; Khan, 2008; Misiaszek, 2015; 2020; Sund & Pashby, 2020;

Whiting et al., 2018). This may be because education on the environment is typically not its own

subject, or it is usually only discussed in science classes. Most importantly, these forms of

education on the environment lack understanding of the root causes of environmental

exploitation - such as colonization, unsustainable economic systems, and policy agreements - and

instead focus on personal responsibility for solving ecological problems (Misiaszek, 2020).

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[1] Environmental Education (EE) is defined as "a process that allows individuals to explore environmental issues, engage in problem-solving, and take action to improve the environment" (EPA, 2020).

[2] Education for sustainability (EfS) is "a process which is all about changing people's attitudes, providing access to knowledge and developing skills, which combine to influence behavior" (Hawthorne & Alabaster 1999 as citied in Meerah, Halim & Nadeson, 2010).

[3] Education for sustainable development (ESD) "empowers learners of all ages with the knowledge, skills, values and attitudes to address the interconnected global challenges we are facing, including climate change, environmental degradation, loss of biodiversity, poverty and inequality" (UNESCO, 2021).

[4] Ecological education "requires viewing human beings as one part of the natural world and human cultures as an outgrowth of interactions between our species and particular places" (Smith & Williams, 1999).

[5] Climate change education (CCE) is "education that aims to address and develop effective responses to climate change" (Ho & Seow, 2017).

[6] Outdoor education is viewed as "a teaching method that draws from both nature study and conservation education" (Disinger 1985 as cited in Carter & Simmons, 2010).

[7] Place-based education (PBE) attempts to make "the boundaries between schools and their environs more permeable by directing at least part of a students' school experiences to local phenomenon ranging from culture and politics to environmental concerns and the economy" (Smith, 2007, p. 190).

[8] Ecopedagogy examines the ongoing effects of oppressions stemming from modernization, development, and globalization on the environment and people (Misiaszek & Torres, 2019).

To genuinely work towards solving environmental problems, it is clear that the critical perspective embraced within ecopedagogy offers a route for students to understand and take action through education. It is essential to consider if and how ecopedagogy and concepts of the environment are incorporated into existing standards in the U.S. More specifically, it is important to consider how people view their role as citizens of a nation as well as local and planetary citizens. The rights and responsibilities of people have been infused in citizenship construction within the social studies standards. Therefore, this paper will examine the social studies standards for the prevalence of ecopedagogy to gain a greater understanding of if students are being taught about the environment and the connection to citizenship.

State of Schools Today

How one is taught about the environment, is how one learns to see the world. The present social studies standards must be evaluated to understand how U.S. citizens are being instructed to think about their relationship with the environment and what has led to the current state of environmental destruction. Today, it has been well documented that U.S. schools have been infiltrated with neoliberal policies and practices (Davies & Bansel, 2007; Giroux, 2014; Hursh, 2007; Ravitch, 2016). In the U.S., the fear brought forth by *A Nation at Risk,* a report outlining how the U.S. is falling behind academically, contributed to ranking subjects by importance and allowed the standards movement to infiltrate learning (National Commission on Excellence in Education, 1983).

The standards movement and policies such as No Child Left Behind (NCLB) condensed schooling down to predictable objectives for students to learn by a set date. NCLB's emphasis on standardized testing has increased the time and attention schools spend on subjects like math,

science, and literacy, while funding for the arts and social sciences has suffered. Schools today emphasize individualism and competition (Ravitch, 2016).

Further, the ever-present consumerism that pervades society influences schools. This has created "consumer citizens," people who are consumers before they are citizens (Doherty, 2007; Norris, 2020). Children learn at an early age that they go to school to join the labor market, build their human capital, and make money. School "provides students referred to as customers and consumers with the knowledge that "[...] they need to sell themselves to the highest bidder" (Giroux, 2002, as cited in Grigorov & Fleuri, 2012). Further, schools reproduce inequalities that are present within the broader society by mirroring the structure of capitalist societies (Bowles & Gintis, 1976).

The pervasive need to fuel the global world economy allows the media to present the ideal American lifestyle as consumerist to citizens from an early age. Many things in the U.S. have become commodified as a result, including education. People can pay for private schools and test preparation with the expectation they will get a degree or certificate in exchange. Education has become a credentialed and competitive process. Schools reproduce these neoliberal and consumerist principles; however, these concepts are in stark contrast to environmental values.

Ivan Illich (1971) is well noted by environmental scholars for advocating the need to deschool society. Illich (1971) argues that the institution of organized schooling is a disservice to society and that the abolition of schools is necessary to help restore humanity to the learning that occurs naturally. Henry Giroux (2014) has noted the significant change in higher education from the takeover of these neoliberal policies. No longer do colleagues work together and have the

freedom to question and critique. Professors are limited as they are demoted to part-time status. These ideas of making a profit have bled into educational institutions at multiple levels. Ecopedagogy examines the ways profits can dictate people and institutional actions, contributing to environmental and social injustices (Kahn, 2008; 2010; Misiaszek, 2020; Misiaszek & Torres, 2019). In summary, the current state of schools does not emphasize constructing environmentally-minded citizens but is focused on profits and consumption.

U.S. Policy on the Environment and Education

To combat environmental destruction, national and international movements have brought the environment into education and set principles for improving the environment. In 1970, the Environmental Education Act was signed into federal law. This created the Office of Environmental Education, established a National Advisory Council for environmental education, and established a grants program. This was only funded until 1975 and officially ended in 1981 (Carter & Simmons, 2010; Environmental Education Act, 1970).

The term *Environmental Education* (EE) is not wholly agreed upon for the date of its inception nor its definition. One of the earliest published definitions was authored by Professor William Stapp in 1969 in the journal *Environmental Education*, now *The Journal of Environmental Education*. This definition is "Environmental education is aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work toward their solution" (Stapp et al., 1969).

There has been a plethora of definitions devised to describe the objectives and practices of EE along with its definition. The internationally accepted definition of EE as defined by The

United Nations Educational, Scientific and Cultural Organization-United Nations Environment

Programme (UNESCO-UNEP) is,

> a process aimed at developing a world population that is aware of and concerned about
> the total environment and its associated problems, and which has the knowledge,
> attitudes, motivations, commitments, and skills to work individually and collectively
> toward solutions to current problems and the prevention of new ones (UNESCO-UNEP,
> 1976, p. 2, as cited in Carter & Simmons, 2010).

During this same time, educators created the North American Association for Environmental

Education (NAAEE) in 1971 as a way to share EE lessons, increase environmental literacy, and

promote civic engagement. *Environmental literacy*, often defined as the goal of EE, is to

understand the natural world and make informed decisions (McBride et al., 2013). NAAEE

continues to serve educators of EE today (Disinger 2001 as cited in Carter & Simmons 2010).

Other organizations have been formed to serve educators and community members in promoting

environmental literacy, such as Greenpeace and the Sierra Club. The Council on Environmental

Education (CEE) helped to establish one of the most well-known curricula internationally for

EE, Project Learning Tree (Carter & Simmons, 2010).

The term *ecological literacy* became more popular in EE during the 1980s as the

emphasis was turned toward understanding science and away from behavior change. "The

ecologically literate person has the knowledge necessary to comprehend interrelatedness, and an

attitude of care or stewardship" (Orr, 1992, p.92). Orr (1992) argues for learning about the

environment and asking the question "what then?" to environmental problems. People continue

asking questions about the future and what action needs to be taken before more disaster strikes.

The emphasis of Orr's (1992) concept is a sense of wonder and urgency. In the mid-1990's

ecoliteracy was popularized in EE (McBride et al., 2013). Ecoliteracy is "an understanding of the

principles of the organization of ecosystems and the application of those principles for creating

sustainable human communities and societies" (Capra, 1997).

The National Environmental Education Act of 1990 established an Office of

Environmental Education within the EPA. This established an environmental education training

program, grants, and the Federal Task Force and National Advisory Council for environmental

education. Additionally, it set up the National Environmental Education and Training Foundation

(NEETF). As stated by the U.S. Environmental Protection Agency (EPA), the components of EE

are to create awareness and sensitivity to the environment, acquire knowledge and

understanding, develop attitudes of concern, develop skills to resolve environmental challenges,

and participate in activities. Further, EE is not simply information about the environment; it

enhances problem-solving, decision-making, and critical thinking. The EPA states that

environmental education does not advocate a particular point of view (EPA, 2020). This final

statement is crucial to examine; according to the EPA, EE does not include telling people how

they should live and behave in the world. Said differently, the EPA does not take a direct stance

on promoting a particular citizenry within EE.

The world has changed significantly since the inception of these agencies and programs.

In a report by UNESCO detailing how education on the environment is incorporated into

education systems, the results indicated that the current systems are not sufficient to address the

pressing issues related to the environment (UNESCO, 2021). Traditional modes of

environmental education are entrenched in Western hegemonic practices and perpetuate

neoliberal inequalities (González-Gaudiano, 2005 as cited in Kahn, 2010). Orr (1992) argues that

education and environmental education are the same. The environment is inherent in education;

however, schools typically separate and ignore the role of the environment in students' daily lives. Potter (2009) argues that our understanding of climate science and current issues the world faces today requires new environmental education legislation to be passed in the U.S. Unlike these versions of EE, ecopedagogy calls explicitly for the promotion of planetary citizenship (Misiaszek, 2016).

International Policy & Environmental Education

Environmental concerns are global concerns. As nations determine environmental laws and environmental education, it is also essential to cooperate internationally to address environmental problems. Paulo Freire notes humans' unique position and responsibility to construct a collective response to climate change and other large-scale problems. This is because humans, unlike other living beings, can self-reflect on actions, envision the future, and construct agreements with each other (Misiaszek, 2020). Freire called this *human unfinishedness*, where people are continuously working to improve situations. It offers hope instead of indifference to large problems (Misiazek, 2020). Most countries have several environmental laws pertaining to the individual nation and there are international conferences, committees, and policies established to create a better environment on a global scale.

While the U.S. Constitution does not protect the environment directly, there are efforts to protect and care for the environment through acts and agencies, as stated above. Some American states have environmental policy acts, and other nations have included rights of the environment directly in their constitution (Cao, 2015). Brazil, for example, has indigenous and environmental rights that coincide to create a form of indigenous environmental citizenship. Additionally, the

rights of nature are presented in the Ecuadorian constitution and the Bolivian constitution makes mention of "Mother Earth" (Cao, 2015).

In 1972, one hundred and thirteen nations collaborated at the international level to establish environmental education on a global level at the United Nations Conference on the Human Environment in Stockholm, Sweden. Here, the United Nations Environmental Programme (UNEP) was founded along with the establishment of the Stockholm Declaration and Action Plan for the Human Environment. This provided a framework for environmental education and a number of recommendations that nations could take to promote environmental education (UNEP, 1972).

Following this conference, the Belgrade International workshop was held in 1975 on EE which produced the Belgrade Charter. The result was a document that added: "goals, objectives & guiding principles of EE programs" (UNESCO-UNEP, 1976). In 1977, The Tbilisi Declaration was constructed which aimed

> to foster clear awareness of, and concern about, economic, social, political, and ecological interdependence in urban and rural areas; (b) to provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment; (c) to create new patterns of behaviour of individuals, groups and society as a whole towards the environment. (Carter & Simmons, 2010; UNESCO 1978, p. 26)

In 1987, the World Commission on Environment and Development produced *Our Common Future,* also known as the *Brundtland Report*. This document defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987, p. 41). It attributed environmental problems to the ways development had been occurring throughout the world, with the massive inequalities between the Global North and Global South.

In addition, it proposed routes for implementing sustainable development to solve the challenges of environmental and social exploitation (World Commission on Environment and Development, 1987).

The United Nations Conference on Environmental Development was held in Rio De Janeiro in 1992. This resulted in the Rio Declaration, the principles of the UN Framework Convention on Climate Change (UNFCCC), and the creation of The Commission of Sustainable Development (United Nations, 1992). In 1992, UNFCCC was signed by 154 signatories who agreed to stabilize "greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system" (UNFCCC, 1992, p. 4). This convention recognized the human impact on the environment and in 1994, 197 nations ratified it.

The International Panel on Climate Change (IPCC) was founded in 1988 by the United Nations Environment Programme and the World Meteorological Organization to provide world leaders with updated science on climate emergencies (Zimmerer, 2014). Scientists compile the latest data on climate science to help world leaders make decisions with a changing climate and environment in mind. On August 9th, 2021, the IPCC presented the sixth edition of the Climate Report. The report presents the most current and complete climate science. The IPCC (2021) states "it is 'unequivocal' that human influence has warmed the global climate system" (p. 5). The future will entail more severe weather and a warming global temperature which will impact people's lives. There has been significant damage done to the environment by humans, and there is a lot that cannot be reversed, but the report finds that there is still time to create a better future if action is taken. The report spells out five different scenarios for the future, depending on the

route nations and people take. This report is intended to help policymakers understand climate science to make informed decisions.

UNESCO has devised a series of goals to combat climate change and promote environmental education. The progression of Education for All (EFA), Millennial Development Goals (MDGs), and The Sustainable Development Goals (SDGs) have all offered plans to address some of the biggest challenges facing the world. However, these plans have been critiqued for not meeting the presented goals, promoting neoliberal policies, and excluding local knowledge (Huckle & Wals, 2015).

A lot of work and commitment has promoted ways to live with the environment to fix global challenges over the years. Yet the world today continues to face these same and, in some cases, worsening problems. Part of the problem is the complacency with which most people live. Within the global world economy, consumerism is given as the answer to many problems. Climate change and environmental education need to be embraced in schools to change how people understand environmental problems. Students need to learn the interconnectedness and cause and effect of problems pertaining to the environment.

When environmental education is taught in schools, it is often within the science classroom. It typically takes the form of information about the workings of the environment but often does not address the underlying causes or social impact of environmental problems. While students need to learn about the workings of the environment first, it is also essential to consider the implications of human actions (Kahn, 2010). Therefore, ecopedagogies should be implemented into social studies standards to allow dialogue about what action is necessary to

live in a more just world. These concerns can be examined through understanding geography, history, citizenship, and other related social studies classes.

Social Studies Education

The National Council for the Social Studies defines social studies as,

> …the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systematic study drawing upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and natural sciences. The primary purpose of social studies is to help young people make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world. (NCSS, 1994)

Citizenship is the goal of social studies education. Risinger (2009) argues that citizenship should be *the* goal of education. Numerous forms of citizenship education emphasize different features (Kerr, 1999). To examine how nations construct citizens, it is important to define civic education and citizenship education. Citizenship education has been defined as a synonym, component of, or standing alone from civic education. Citizenship education "emphasizes skills that enable students to become effective decision-makers who can participate in society" (Sears & Hughes, 1996, p. 130). Kerr (1999) uses the terms interchangeably, "Citizenship or civics education is construed broadly to encompass the preparation of young people for their roles and responsibilities as citizens" (p. 2). Davies et al. (2005) argue that citizenship education is an aspect of civic education. This paper will take Kerr's (1999) perspective of civics and citizenship education as synonymous.

The current statement from the NCSS states, "the aim of social studies is the promotion of civic competence—the knowledge, intellectual processes, and democratic dispositions

required of students to be active and engaged participants in public life" (NCSS, 2021, para.1). Therefore, through the social studies curriculum, students are instructed on how to be a citizen.

State Social Studies Standards

In the U.S., there are no national social studies standards; therefore, each state determines its standards for what content and skills should be taught in particular subjects. However, the National Council for the Social Studies (NCSS) provides a national framework for states to use when developing their standards. There are also national frameworks for particular subjects within social studies subjects that can direct curriculum leaders and teachers. The stated purpose of the NCSS is,

> The NCSS curriculum standards provide a framework for professional deliberation and planning about what should occur in a social studies program in grades pre-K through 12. The framework provides ten themes that represent a way of organizing knowledge about the human experience in the world. (NCSS, 2021)

While states are not required to use the framework provided by NCSS, it serves as evidence of what professionals in the field have determined American youth should be learning in K-12 social studies classrooms.

The NCSS has identified ten themes of social studies. In the theme *People, Places and Environments* the framework argues that students should "investigate the impact of human activities on the environment", "expand their knowledge of diverse peoples and places," "express interest in and concern for the use and misuse of the physical environment" and examine the "causes and implications of national and global environmental change" (Adler & National Council for the Social Studies, 2010). The template for themes within the NCSS promotes many of the concepts of environmental literacy and citizenship; however, how each state decides to incorporate these ideas into its standards differs.

In most social studies classes, there is a lack of emphasis on the connection between the environment and citizens' role in relation to it. The way the environment is presented is stagnant. The push to make lasting change, as emphasized at the beginning of the modern environmental movement, has not translated into schools. However, Hart (2010) argues that these subject areas are compatible with addressing responsibilities, social issues, and community concerns. Hollstein and Smith (2020) also say that EE should be an integral part of social studies education because the environment is directly tied to our daily functioning as citizens on multiple levels. Therefore, we must consider and address how to live in this environment as citizens, questioning what rights and responsibilities we have concerning the environment (Hollstein & Smith, 2020). This study examines the way the U.S. talks about the environment and social studies to determine if there is a disconnection and if there is a need for new or revised standards to understand the connection.

Truth and Controversy

While determining the best way to take care of and interact with the environment, there are always differences of opinions concerning people's rights and responsibilities, yet this dialogue is essential to engage in. In recent years there has been a debate over what counts as truth and who holds it (Van Poeck, 2019). The division over what schools should teach and how people should live together is evident between political parties within the U.S. (Bliuc et al., 2015). Realities of the past have long been skewed into metanarratives by Western hegemony to perpetuate American exceptionalism and the supposed inevitability of capitalism (O'Brien, 2001). These metanarratives present a type of superiority in which Americans are often taught a version of history that silences some, often minority, voices in formal education (Loewen, 2008).

It is more challenging and more vital than ever to teach youth an accurate picture of history and current situations in order to make informed decisions for the future.

When teaching humans' rights and responsibilities to the environment, the topics could be interpreted as indoctrination if it prescribes how students should live (Van Poeck, 2019). As with citizenship, there is controversy over how the environment should be taught in schools. Arne Næss was a leading scholar in deep ecology, which acknowledges that humans should not exploit the environment but see themselves as part of it. In deep ecology humans, as part of this community, have an obligation to take care of everyone and everything in the community (Chamberlin, 1997). In an interview, Næss notes that EE is not about telling students how to behave but about exposing students to the environment and related issues and helping them form their own decisions about interacting with the rest of the world (Næss & Jickling, 2000). Therefore, teachers must help students self-reflect, pose problems, and question things that are often taken for granted, presented as inevitable, and considered common sense (Misiaszek, 2020; Misiaszek & Torres, 2019).

When governments at local, national, and international levels consider the relationship between humans and the environment, it is often through understanding their rights and responsibilities. In other words, through the construction of citizenship. Questions arise about human's stewardship of the environment, the obligations humans must be accountable to as thinking beings, and the rights humans have to the environment. Therefore, while it is important to consider the ways the environment is inherently interdisciplinary, and pertinent to many disciplines, citizenship education is particularly applicable. While there has been a lot of work on bringing the environment into education, there is often not an explicit connection between

systemic injustices and inequalities in connection with economic and social systems and the environment (Bromley et al., 2011). This paper will look specifically at ecopedagogy as a form of critical environmental education and its role in social studies standards, particularly in citizenship construction.

Concepts of Citizenship

Citizenship can take different forms, but most consider citizenship as the relationship between humans and the state. Under this "contract" the rights and responsibilities of both parties are essential components. Traditional conceptions of citizenship in the U.S. can be broken down into two key modes, liberal and republican. These modes of citizenship can be traced back to ancient Greece and were drawn on during the inception of the U.S. (Cao, 2015; Kahn, 2010). The elements of liberal citizenship consist of individual perspectives, private interests, legal protections, rights, and entitlements. Critiques of liberal citizenship create social inequality, individualism, and a passive citizen who does not participate in community affairs (Cao, 2015). Republican citizenship focuses on the collective perspective, taking the public good into account and focusing on political participation, duties, and obligations. Core critiques of republican citizenship are that it can be viewed as indoctrination and creating a patriotic community with docile citizens who do not critically question it. When incorporating the environment into these forms of citizenship, a "good" citizen can be envisioned very differently. Other versions of citizenship have gained prominence, such as feminist, multicultural, and globalist perspectives (Cao, 2015).

National citizenship places the nation at the center of how people interact in the world. National citizenship emphasizes loyalty to the nation. This form of citizenship has attempted to

assimilate people into the principles of U.S. citizenship. Schools have actively worked to mold people into the idea of being an "American" (Stratton, 2016). In this way, education in America has stripped cultures and languages from people (Carroll, 2009; Nursery-Bray, et al., 2020; Stratton, 2016; Wolfe, 2006). National citizenship appears less relevant for the interconnected world in which we live today.

As globalization has created new ways for humans to interact, new forms of citizenship have developed. Following World War II, ideas of cosmopolitan citizenship grew. This often focused on harmony and international understanding with others around the world. There are multiple definitions and concepts to describe the expansion of citizenship beyond the individual nation to an international and global perspective (Sylvester, 2002; 2003; 2005). The current model of international perspective of citizenship is global citizenship (Pigozzi, 2006; Torres, 2017).

The move toward global citizenship has been prominent and expansive in recent dialogue. With the increasing interconnectedness due to globalization and expanding technology, a global view of citizenship appears necessary. One of the most evident areas where international, and national cooperation and collaboration is needed is understanding and improving environmental conditions and climate change. Further, international organizations have been established to bridge the role of nations with the current global economic system. Torres (2017) expresses the need for global citizenship education (GCE) that is transformative, consciousness rising, can incorporate many different aspects, and face challenges in different locations.

However, U.S. education today remains more focused on national citizenship than broader forms such as global citizenship (Myers, 2006). One problem with remaining nationalistic in thinking about environmental issues is that the environment does not recognize borders. The damage one nation creates impacts other nations and ecosystems around the world. Focusing only on national citizenship creates a limited and single-sided way of thinking about global challenges. Furthermore, some nations, such as low-lying islands, are at a greater risk to feel the effects of climate change and other environmental issues (EPA, 2000; Holifield, 2001).

Green Citizenship Theories

Several citizenship theories incorporate or emphasize the environment. However, understanding what rights and responsibilities people have in relation to the environment is often contested. While environmental citizenship is fairly new to mainstream education, many proposals and terms have been raised concerning human citizenship and the environment (Cao, 2015).

Common conceptions of citizenship analyze the rights humans have to use and enjoy the environment, such as the right to clean water and air. This perception of citizenship places humans above all others in the environment. Plato's conceptualization of a hierarchy of living things put humans at the top, with the power to control those below as they wished. This anthropocentrism follows ideas dating back to ancient Greece and advances perceptions of superiority along the hierarchy (Cao, 2015).

Environmental citizenship has been widely used as the goal of environmental education since the 1970s (Schild, 2016). Benito Cao (2015) describes *environmental citizenship* as the relationship between the environment and democracy. It involves knowing about one's local

environment and the context through which relationships are formed. Environment citizenship involves sharing knowledge and making connections with places (Dunkley, 2018). Another type of green citizenship is *sustainable citizenship*. This is "a national and international policy goal" for promoting a citizenry invested in making sustainable choices about society and nature (Bullen & Whitehead, 2005, p. 499 as cited in Pope & Patterson, 2012). The buzzword *sustainability* has become a popular way to express the actions people take to allow for the continuation of life. It is forward-looking to encompass ideas that advocate for lifestyle changes in the present to allow life for future generations. *Ecological citizenship* is another concept and goal of EE. The core work of ecological citizenship is to decenter humans from the rights associated with the environment and take an ecocentric view of rights. Ecological citizenship emphasizes the virtues of justice and care (Dobson, 2003). This perspective emphasizes the global community of all citizens and the need to act on current and past injustices in environmental and social realms (Cao, 2015). Green socialist perspectives and Marxist ecology stress the inequities of the world perpetuated by the global capitalist system and call for a restructuring of the world towards more sustainable means. Social ecology and *eco-anarchy* or *green anarchy* work to liberate the earth from the oppression placed on it. The goal is to create local political communities that interact with and care for the environment non-hierarchically (Bookchin, 1995).

Numerous international organizations have laid out the rights of different groups of people. Closely tied to human rights in many proclamations are environmental rights and the responsibility of nations to ensure these rights. The Universal Declaration on the Right of Indigenous Peoples (UNDRIP) asserts the rights of indigenous peoples to protect their land and

environment (United Nations, 2007). The Universal Declaration of Human Rights articulates that humans have the right to a healthy environment (Assembly U.G., 1948).

When considering forms of green citizenship, there is a clear connection between human rights and the rights of the environment. Environmental rights are "any proclamation of a human right to environmental conditions of a specified quality" (Bruch, 2019). Humans continue to focus on human rights to the environment. When humans start to see the natural world as deserving of rights, this promotes the human rights of all people around the globe. No longer will it seem acceptable for some people to have no access to clean water while others are wasteful with their usage (Shiva, 2005). Shiva (2005) advocates for Earth Rights, giving rights to the environment, as it contributes to protecting human rights.

Additionally, as the environmental movement has gained momentum and the public began looking for environmentally responsible businesses and corporations to support, these organizations had to make changes to their operations. As articulated above, consumption in the U.S. is presented as the path to success, therefore consumption practices must be reassessed to consider how people buy and live and its effect on the environment. Corporate environmental citizenship is the term used to describe how corporations and businesses have adopted the ideology of sustainable development. This growth in corporate social responsibility holds corporations to the standards of environmentally friendly practices (Cao, 2015).

However, some businesses and corporations began to adopt the terminology of the environmental movement without aligning with the actions. Greenwashing is used to describe the rhetoric and imagery of environmentally friendly practices that are applied to paint a business or corporation in a favorable light while, in actuality, it is not adequately addressing the ways it

is producing environmentally unsound practices (Bricker, 2014). The word choice works under the guise of environmentally sound beliefs (Bricker, 2014).

Civic environmentalism is another concept that explicitly brings together the environment and social studies education. Civic Environmentalism identifies EE as an essential component of civic duty (Hollstein & Smith, 2020). Schild (2016) states "civic environmentalism locates acts of citizenship within a smaller, community context, through democratic deliberation, stakeholder-driven decision making, and community-based environmental stewardship" (p. 28). This concept calls on people to collaborate to strengthen the local environment and community ties (Schild, 2016). Civic environmentalism examines how communities are impacted by environmental decisions. The tie between care for the environment and one's local community are essential to one's civic participation (Dobson, 2005). The local concern is at the forefront of civic environmentalism. Dewey (1927) as cited in Orr (2009) articulates, "Democracy must begin at home, and home is the neighborly community" (p.75). We must first learn to care about our own home and then we can extend to regional, national, and global care.

There has been a lot of work on the importance of feeling a sense of belonging to a place, in order to take responsibility to care for it. It is common today for people to move throughout the world, residing in new locations for work or travel without feeling a sense of connection to a place. Some scholars note that without a feeling or bond to a place, people lose their responsibility to care for it (Orr, 2009). People who don't establish roots or think about the long-term future of a place can become apathetic to the environment (Szerszynski, 2006). Szerszynski (2006) differentiates between a resident and an inhabitant. One who dwells in a place establishes a different relationship than one who makes a temporary stay in an area. Therefore, establishing

a connection to the environment is important for students to feel a sense of belonging and responsibility.

Naomi Klein (2014) argues that the reality of climate change and environmental destruction is a matter of the story we have been telling ourselves. The present story is one of innate human greed and insatiable growth. This has allowed humans to view the earth as something to mold to the needs of humans. The idea that the Western version of development is the only route to take, and that environmental degradation is inevitable leaves no room for human agency. Klein (2014) states that what is needed is a change to the story. Not all societies and communities irreversibly harm the environment. The idea that humans will inevitably exploit the environment has not always been common rhetoric. The capitalist and colonial mindset of superiority and entitlement creates such destruction and has become the dominant worldview in which the world functions.

One study of high schoolers in Canada found that students identified caring for the environment as an important component of being a good citizen. However, students exhibited a lack of depth in knowledge as to how to care for the environment and the broader impacts of actions (Tupper & Cappello, 2012). While students are taught about the environment, there is a disconnect between the larger implications of actions and the reasoning behind the responsibility of citizenship. Ecopedagogy by contrast works to deconstruct the common narrative taught about society and emphasizes the connections between beliefs, behavior, and actions through a planetary perspective (Kahn, 2008; Misiaszek, 2020; 2021).

The research questions will examine the social studies standards to look for the extent to which ecopedagogies are incorporated into the standards. As social studies is the subject most

connected with citizenship construction, this is the area to look for the relationship between citizenship and the environment. This data will give insight into what role the environment plays in the construction of citizens and how it differs throughout different regions of the United States.

CHAPTER TWO

LITERATURE REVIEW

The literature review will discuss modernization theory as it has shaped our world along with key concepts of development and globalization. These concepts serve as essential formulations that make up the world and the Anthropocene. Ecopedagogy will be defined along with its tenants, benefits, and determinants as an alternative mode of understanding the world and the role humans have in it. The final section of the literature review will present the application of ecopedagogy within education.

Crucial to understanding today's environmental problems is the theory of modernization. The world is growing increasingly unequal, both within and between nations (UNDESA, 2020). The massive inequalities that continue today are tied to environmental and social exploitation. Thus, the concepts of modernization and development have had a large impact on shaping the current world. Rostow (1959) defines his theory of development as occurring in five stages working towards a high mass consumption society. This linear concept of modernization continues to serve as the model for economic growth in development agendas. This perspective has divided the world into developed and developing nations as defined by the developed and wealthy nations (Escobar, 1995). Today, the Global North and the Global South are differentiated through these paths of development, with clear distinctions separated by the *abyssal line* (de Sousa Santos, 2007).

The world is fully engulfed in the global world economy of capitalism (Wallerstein, 1974).

By the very nature of the overriding system of capitalism, inequality must ensue. Capitalism is not a system that advocates for the well-being of all, but rewards those who can make profits (Wallerstein, 1979). The global divide requires market value as a way for nations to prove legitimacy (Wallerstein, 1979). In 1972, Meadows et. al., (2013) published *Limits to Growth*, which gave a prediction of global collapse due to the rate of growth, overconsumption, and environmental exploitation. The authors explained that it was unsustainable to have infinite growth on a finite planet. The authors called for an end to the capitalist system, which promotes unrestrained growth (Meadows et al., 2013).

An additional aspect that ecopedagogy finds essential to explore is globalization. Globalization has made the world more connected than ever. As a widely used term, globalization has numerous definitions and connotations. Al-Rodhan & Stoudmannn (2006) define globalization as "a process that encompasses the causes, course, and consequences of transnational and transcultural integration of human and non-human activities." (p.5). In some ways, globalization appears synonymous with Americanization. This is the hegemony of Western influences which destroys local ideas and ways of life that cannot compete in the global market which looks to profit and exponential growth (Gramsci, 1971; Brosio, 1994). In the educational context, this hegemony establishes the Global North as the gatekeepers of knowledge (Apple, 2018). Modernization theory and development ideology influence schools to create individualist and consumer citizens. In contrast, ecopedagogy calls for the construction of environmentally conscious citizenship.

Environmental activists have drawn attention to the harm caused by the relentless greed of corporations and capitalism which cause significant ecological damage in the name of profit.

Corporations in America enjoy the rights of a person without any of the responsibilities people face (Achbar et al., 2003). Many environmentalists have argued that the responsibilities of corporations need to keep up with the rights they have been afforded (Achbar et al., 2003). Corporations and the wealthy set the rules for how to survive in the world. This current system contributes to the suffering of humans and the environment. Recognizing this injustice brings forth the incorporation of ecopedagogy into education. Within ecopedagogy, issues are not viewed as isolated occurrences, but as intertwined repercussions of the connectivity between environmental and social injustices (Kahn, 2010).

The concepts of development, modernization, and globalization are linked to the environment and the way humans interact with nature. These concepts shape the goals, behaviors, and attitudes of people around the world. Ecopedagogy calls on students to question these notions of what appears to be common sense but is actually working counter to natural systems (Misiaszek, 2020). Ecopedagogy exposes the way people are conditioned to think and act within the current world order.

Ecopedagogy

Ecopedagogy calls for the examination of present socio-environmental problems that are brought about through policies and actions shaped by modernization theory and related policies. Ecopedagogy examines the ongoing effects of these oppressions stemming from modernization, development, and globalization (Misiaszek & Torres, 2019). Ecopedagogy can be used to connect social studies, particularly the construction of citizenship, with environmental consciousness. Ecopedagogy can serve as a unique link to connect social studies standards to environmentally-minded citizenship.

Ecopedagogy is a critical theory. Critical theories cover a range of fields, but all emphasize the critique and reflection on power structures and inequalities in society (Galambos et al., 1995; Held, 1980). Paulo Freire established key principles of critical theories that apply to ecopedagogy. First, education is political. When information is being presented and taught to students, it will always occur with some form of bias. Humans cannot be completely neutral, which applies to educational aspects, especially when critically questioning environmental and social injustices. Ecopedagogy takes a critical lens on traditional forms of environmental education for their lack of depth and connection between economic, social, and environmental problems (Kahn, 2008).

Critical theories examine the ways oppression and inequalities persist in the world intending to raise critical consciousness and reach towards liberation. Critical theories examine the relationship between the oppressor and the oppressed and how these forms of power and control are present (Freire, 1970). These oppressive modes can be hidden, subtle, and even undetected without examining the deeper structures and roots. Ecopedagogy follows this same core principle by examining the interconnectedness of environmental and social injustices and working towards liberating the oppressed (Misiaszek, 2020). Ecopedagogy was termed in Brazil by critical scholars; Paulo Freire, Moacir Gadotti, and Francisco Guiterrez. Ecopedagogy has a specific focus on examining the ways environmental and social issues cannot be separated but are core to the work of achieving justice in many areas.

Paulo Freire, the most prominent scholar of critical theory, has contributed greatly to the scholarship of liberation and anti-oppression in education. Although he did not publish work on ecopedagogy he was working on a book on the environment before his death (Misiaszek &

Torres, 2019). To finish and extend the work of Freire on the environment, Misiaszek and

Torres, (2019) wrote *Ecopedagogy: The Missing Chapter of Pedagogy of the Oppressed*. This

work is based on what Misiazek and Torres believe Freire would have written on ecopedagogy

and the environment in education and applies Freire's concepts to the environment.

Ecopedagogy problematizes the world we live in as a way to learn, take action, and

improve it. Some questions ecopedagogy addresses are "What populations are most affected by

environmental violence and why?" and "How is 'development' and 'progress' taught, and how

do we frame who benefits from such 'development' and 'progress'?" (Misiaszek & Torres,

2019). In this way, to only look at environmental issues while not considering the social

inequalities and repercussions is to inadequately analyze environmental issues (Misiaszek, 2020).

Misiaszek (2020) further argues, "Without problematizing hegemonic *D*evelopment models,

environmental pedagogies become oppressive and reproduce neocolonial structures" (p.67).

Isolating environmental problems from the social implications distorts the true reality of the

world. Misiaszek (2020) defines the goal of ecopedagogy as working to "unveil hidden politics

of socio-environmental injustices" (p.244). Misiaszek (2020) argues ecopedagogy is necessary to

expand citizenship while remaining in contact with the local context and ultimately work to

improve the world.

Ecopedagogy calls for critical questioning of the current practices of environmental laws

and environmental education, especially what is accepted as common sense (Misiazek & Torres,

2019). Programs and pedagogies that appear to support environmental justice may actually

distract people from the larger and more serious issues. The neoliberal view of environmentalism

places the responsibility and accountability of environmental impacts at the individual level. This

rhetoric deepens the problem by emphasizing the wrong aspects. Individual accountability, while still beneficial, detracts from the much larger issues at play and gives people a false sense of accomplishment to a much broader problem. Neoliberalism tells people to change personal habits while avoiding deeper issues. Therefore, the turn towards ecopedagogy is needed as it directly works to challenge these dominant discourses that have been promoted (Schindel Dimick, 2015).

Ecopedagogy also takes a critical view of other forms of environmental education for the lack of inclusivity, hegemonic aspects, and lack of genuine change to emerge from them. It is essential to problem-pose and question pedagogy and methods currently in place within environmental education. Ecopedagogy does not accept the neoliberal form of citizenship but looks to planetary citizenship. Misiaszek (2016) argues that ecopedagogy should be an essential component of citizenship education and citizenship should be part of ecopedagogy instruction. Critical theories work towards conscientização or critical consciousness. In ecopedagogy, this entails becoming aware of environmental problems, the relationship between humans and the rest of nature, and the social inequalities that persist in the current system (Misiaszek, 2020). Through problem-posing and deconstructing these systems, an attitudinal change of gaining critical consciousness will need to be made. Kennet (1972) argues, "If the civil war between man and the rest of nature is to be ended, there must first be an end to the municipal war between man and man" (p. 40).

Freire (1970) strongly critiqued the concept of banking knowledge. The banking model of education makes the teacher all-powerful while keeping the student passive in the learning experience. In this way, the student is simply meant to take in what the teacher tells the student.

In contrast, Freire promotes an active role for students while the teacher serves as a guide and learner. This allows for dialogue to occur between students as well as the teacher (Freire, 1970). The application of this in ecopedagogy entails collaboration between the teacher and students. The teacher has the essential role of not limiting exploration or controlling all aspects as the all-knowing teacher, but rather the teacher is a learner themselves. Therefore, ecopedagogy strongly works against the form of banking instruction and is experimental and collaborative (Misiaszek & Torres, 2019).

Within ecopedagogy, students practice ecopedagogical readings, which involves "reading Earth holistically" (Misiaszek & Torres, 2019, p. 44). The goal of ecopedagogical reading is to identify oppression and where suffering and privilege lie (Misiaszek & Torres, 2019). Through the deep analysis of the many relationships, students come to grasp a fuller understanding of the world and learn to ask critical questions about the current systems. Praxis is the concept that calls for action and transformation. Once equipped with critical consciousness, students can work to imagine new realities and systems to solve today's problems. This inventive process promotes imagining new ways of being in the world (Freire, 1970).

Planetary Citizenship

It has been clear throughout multiple forms of education on the environment that there is a need to change thinking about the relationship of humans with the rest of the environment. The attitudinal shift needed must decenter people from exceptional importance and shift to see how people around the world rely on each other and the environment. Expanding citizenship to look beyond one's community, nation, and even global mode to a broader, planetary level is essential in ecopedagogy. Moacir Gadotti (2008) defines planetary citizenship as "an expression that was

adopted to express a group of principles, values, attitudes, and habits that reveal a new perception of Earth as a single community" (p. 23). Ecopedagogy supports the development of students towards identifying themselves as part of this planetary citizenship (Misiaszek, 2020; 2021).

Planetary citizenship involves recognizing the inherent worth of non-human beings and things. Humans are categorized into many levels of citizenship, with planetary citizenship being the most all-encompassing (Misiaszek & Misiaszek, 2016). The concept of planetary citizenship may appear too idealistic, and scholars have noted that humans first need to learn to respect and manage themselves before extending this to other beings in the environment (Dobson & Bell, 2005). When expanding who is a citizen and who should have rights, it usually seems unfathomable to include the next group, until the rights are given. By encompassing the environment into citizenship, Stone (1974) argues that not all citizens of the planet are equal or have equal rights and responsibilities as humans but should still be encompassed in the concept. Freire noted in 1970 that the most oppressed "citizen" is the earth and that humans are the source of this suffering and exploitation (Gadotti, 2008). Therefore, the *human ethic* describes that it is humans, who have the responsibility to remedy these injustices and live in harmony with the earth.

Incorporating the human ethic is essential in grounding critical GCE goals and expanding citizenship to the planetary sphere (Misiaszek, 2020). Ecopedagogy embraces the idea that the earth should be given rights. It calls for seeing the world as one unified community with actions taken to understand this interconnectedness (Torres, 2017). Torres (2017) argues "Ecopedagogy, by definition, focuses upon social justice in the teaching of environmental problems and the

development of possible solutions beyond the scope of existing scientific, political, and economic frameworks" (p.117). In this way, ecopedagogy does not look for simple changes but examines the deeper root causes of issues and looks for new ways of being in the world that can transform the current system (Torres, 2017).

Application of Ecopedagogy

At the intersection of how the U.S. creates citizens and cares for the earth is ecopedagogy. These two concepts find common ground in ecopedagogy. To bring ecopedagogy into schools and curricula (Misiaszek, 2016) argues for an "ecopedagogical paradigm shift in environmental teaching and research." (p. 587). This shift would entail recognizing the environmental crisis it is. It calls for prioritizing the subject of the environment instead of leaving environmental concerns for when there is extra time in the school year. Further, environmental, and social issues must be discussed and incorporated into discussions of citizenship to provide a holistic picture of the way the world works. Schools must empower students to imagine new possibilities, think beyond current systems, and encourage critical thinking. The key to this process is collaboration and community building. From here, students deconstruct these systems to examine where inequalities or injustices lie.

A key concept to examine in ecopedagogy is *hegemony*. Gramsci (1971) developed this term to describe the way the ruling class maintains control through ideology. Hegemony is exercised in many formats, including institutions, ideas, and culture. It allows the ruling class to stay in power while oppressing others. Hegemony works within education to perpetuate the ideas from the wealthy class onto others. Therefore, hegemony establishes what behaviors and knowledge students need to present to be deemed successful academically (Cox, 1983). Freire

(1970) believes that instead of blindly reinforcing hegemony, education must expose how it works and the associated inequalities and then work to become liberated.

Western hegemony is prominent in conceptions of incorporating the environment into education. Examples of hegemony in the U.S. today include textbooks, teacher preparation programs, state and national curriculums, standards, tracking in schools, English as the lingua franca, and school policies that disproportionately affect students of color (Ball, 1993; Connell, 2013). To have education centered on the environment that examines current ideology, students must question the dominant world order through the deconstruction of power relations and institutions that work within it. This deep analysis will show who has control, how it is maintained, and how the world has become so unequal.

Fundamental in deconstructing common narratives within ecopedagogy is the concept of *environmental justice.* The EPA (2000) as cited in Holifield (2001) argues "The goal of environmental justice is to ensure that all people, regardless of race, national origin or income, are protected from disproportionate impacts of environmental hazards." (p. 80). Students must examine how and why environmental problems impact people in different ways. Along these same lines is *environmental violence*, which analyzes how acts of environmental destruction are acts of violence against people. This type of violence can be more challenging to identify because environmental violence often takes the form of slow violence over multiple generations (Barca, 2014).

The core skills students should have after being taught from an ecopedagogical framework include being planetary citizens, being environmentally conscious, valuing equity, social justice, dialogue with participants, and problem-solving to be action-oriented. In the U.S.

students are not often taught these principles of ecopedagogy, but they may learn some concepts related to environmental education. If students were to learn about their civic rights and responsibilities to the environment through a framework of ecopedagogy, students may start to call into question the overarching systems that make up our world today, such as modernization, development, and globalization and the way these systems impact humans and the environment in different ways. This would also call for students to take action to make changes, as they would look to themselves as active citizens.

Criticisms of Ecopedagogy

A challenge with implementing ecopedagogy into citizenship education globally is the different conceptions of citizenship and its role in societies (Misiaszek & Misiaszek, 2016). One clear example is that the term *citizenship* is a Western construct and does not directly translate into all contexts. Different nations have different histories, ideologies, and roles for the state, people, and understanding of the planet. Within the U.S., there is no agreed-upon definition of what a "good citizen" is or what role humans should play in relation to the environment, let alone how to go about teaching these ideas.

Many of the principles of ecopedagogy do not fit into the current school systems in the U.S., which value competition, conformity, and completion over creativity, and collaboration. This can pose numerous challenges to implementing ecopedagogy into the school day (Hart, 2010; Sund & Pashby, 2020). Research on ecopedagogy found that implementing ecopedagogy into education was best when not in the traditional school setting but rather was most effective in environments that allow students to explore and imagine new possibilities for change such as through place-based education (Dunkley, 2018).

Incorporating indigenous knowledges is an important counter-hegemonic tool that should be used; however (Virtanen et al., 2020) notes the importance of indigenous language when learning indigenous epistemologies. This can pose a challenge to teachers and learners who are not familiar with indigenous epistemologies. It is not enough to simply add in aspects of indigenous knowledge, teachers and schools must unlearn and relearn themselves. The language used to describe and discuss indigenous knowledges is important. Nursey-Bray et al. (2020) note that indigenous people are often defined as either "vulnerable and/or "resilient" in regard to environmental problems, but that dichotomy limits the depth of experience of indigenous people around the world. An authentic understanding of indigenous knowledge is needed.

It may seem that only so much can be accomplished by implementing ecopedagogy through the traditional school system that is focused on standards and achievement measures. Scholars have questioned the success of truly transformative movements in spaces and societies that value such different things. However, ecopedagogy could be a first step in achieving more transformative measures in education and society at large. In Erik Olin Wright's book *How to be Anti-Capitalist*, he offers strategies for how best to transform the current global economic system. Wright (2016) describes one route for creating change as sparking change from within the present system. This change will bring about movement at a greater scale rather than through means of revolution or direct overthrow (Wright, 2016). Additionally, Jørgen Randers calls into question democracy's ability to create a sustainable future and deal with the environmental and social challenges that the world is facing (Randers, 2012). Complex questions must be asked to get to the core of problems and envision authentic change for the future.

While ecopedagogy may be difficult to implement in the traditional school system, it is

still possible. As educators look to address the biggest problems facing the planet today, ecopedagogy can offer a route to a better future. There is research on EE and GCE however, there is little research on ecopedagogy, its presence in social studies standards, and its role in the construction of planetary citizens.

This study will examine current social studies standards for relationships between citizenship construction and the environment along with ecopedagogical concepts. By identifying if ecopedagogy is present in standards and the extent of relationships between citizenship and the environment, we can begin to chart how to move forward to create environmentally-conscious citizens.

CHAPTER THREE

METHODS

Research Question

This research seeks to answer the following question: What is the prevalence of ecopedagogies in the construction of citizenship in U.S. high school social studies standards? Additional questions that will be addressed are: How does the U.S. construct planetary and environmentally conscious citizens? What is the relationship between citizenship and the environment in the social studies standards? What differences are there by state in teaching ecopedagogy in the social studies standards?

Methodology

To gather data on how the U.S. teaches social studies and constructs citizens in relation to the environment, I conducted a content analysis of state social studies standards. A content analysis examines text to gather information about what the content is saying and draws connections to the language's broader context (Hsieh & Shannon, 2005). Holsti (1969) defines content analysis as "any technique for making inferences by objectively and systematically identifying specified characteristics of messages" (as cited in Stemler, 2000, p. 14). Qualitative content analysis works to categorize information beyond simply the frequency of a word. It sees information within the history and context it was written in. This method involves categorizing data and can include further categorizing and recognition of relationships between groups (Hsieh & Shannon, 2005)

The United States does not have a single, uniform national curriculum or standards for all grades and subjects within social studies. Therefore, I examined the state's current U.S. social studies standards for all required courses at the high school level. This study is a cross-sectional analysis. My unit of analysis consists of three states from four regions of the U.S. to sample the standards. State standards are revised and published on different yearly cycles, approximately on a ten-year basis. States form advisory committees to review and revise the standards composed of educators and individuals employed in education. The revision process typically receives feedback and comments from the public before full adoption. The states selected are a sample of social studies standards throughout the United States and represent the four major regions of the United States as defined by the U.S. Census Bureau, the West, Midwest, the Northeast, and the South.

The states that make up the Northeast include Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Hampshire, and Pennsylvania. The states that make up the Midwest include Ohio, Michigan, Indiana, Wisconsin, Illinois, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas. The states that compose the West include Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, California, Oregon, Washington, Alaska, and Hawaii. The states that make up the South include Delaware, Maryland, Virginia, West Virginia, Kentucky, North Carolina, South Carolina, Tennessee, Georgia, Florida, Alabama, Mississippi, Arkansas, Louisiana, Texas, and Oklahoma.

All three of the selected states from each region require a civics course and one of the states from each region requires a civics exam in addition to a civics course. Some states do not require a civics course, these states are not included in the study as this study focuses on

citizenship construction therefore, I analyzed states that exhibit some level of commitment to civics through social studies education. The selected states from the Northeast include Massachusetts, Connecticut, and New Hampshire. The states from the Midwest include Iowa, South Dakota, and Minnesota. The states from the South include Georgia, Mississippi, and South Carolina. The states from the West include California, Nevada, and Wyoming. This data is representative of the objectives and goals of each state for students learning social studies and provides insight into the prevalence of ecopedagogies in social studies.

The states analyzed in this study require at least one civics course during students' high school career. The grade level differs by state as to when these courses are to be taken but remain within the span of a student's high school career. A course can also differ in length and depth, ranging from six weeks to an entire school year. Educators are required to teach the state standards in the respective subject. Therefore, the standards must be taught regardless of the length of the course, time in class, or structure of how the content is being taught. The high school level was chosen because students at the high school level are nearing the age of adulthood, where their rights extend to voting and adult participation in civic life and their understanding of citizenship is most developed.

Data Analysis

I accessed the social studies state standards on each state's respective department of education website. I documented the name of courses under the subject of social studies as well as the number of standards each state has in respective courses. I noted each state's time or course requirement for social studies classes. I used a deductive approach of analysis to create the themes I expected to find when coding the standards. The initial themes I looked for were

Anthropocene, natural resources, planetary citizenship, climate change, sense of place,

environmental literacy, sustainability, environmentally conscious, nature, exploitation,

capitalism, globalization, rights, taking action, and *epistemologies.* To code the standards, I

looked for terms and phrases that encompassed concepts of ecopedagogy such as a sense of

place, and environmentally conscious, and key terms such as *climate change, Anthropocene,*

environment, *citizenship, natural resources, and sustainability*.

I became familiar with the data and coded the text into themes. After coding the standards

into ecopedagogical themes, I used an inductive approach to review the themes and reorganized

them to better illustrate what was found in the standards. Some themes were combined, others

taken out and standards were redistributed into better fitting themes. The themes I ended with for

my final analysis and defined were *climate change, Anthropocene, environmental literacy,*

planetary citizenship, capitalism, hegemony, sustainability, and *critical pedagogy*. I determined

the definitions of the themes by the most widely accepted definition or by authors who have

contributed to ecopedagogy and used similar definitions in their research. Following the final

selection of themes, I coded the standards and determined if a standard met the criteria for fitting

one of the eight themes and if so which theme.

The criteria for the theme of *Anthropocene* had to include humans impacting the climate

or environment. This could include human-made disasters, depletion of resources, or changes in

temperature due to human activities, among other related concepts. The connection needed to be

explicit between human action and an impact felt by the environment.

The criteria that determined the theme of *planetary citizenship* had to describe everything

on earth as a single community. This is distinct from other forms of citizenship such as global

citizenship but many of the principles of green citizenship theories align with planetary

citizenship such as an ecocentric worldview (Dobson, 2003). Further*, planetary citizenship*

incorporates ideas of rights extending to the earth and a non-hierarchical view of elements on the earth. Any concept of citizenship that did not mention these broader processes would not fit under this theme as it most likely pointed to a different form of citizenship.

The criteria used to identify the theme of *climate change* needed to discuss a changing climate. This is distinct from the theme *Anthropocene* which explicitly states the role humans play in changing the climate or environment. If the source of a changing climate was humans, the standard would not fit this theme. For example, global warming would fit under this theme as long as the standard did not mention humans as the reason for impacting the change in climate or environment.

The criteria used to identify the theme of *environmental literacy* was an understanding of the natural systems on earth. This also included understanding the relationship of how different natural systems work together. Initially, *sense of place* was a separate theme but with such similar and occasionally overlapping principles, *sense of place* was absorbed into the theme of *environmental literacy*. *Sense of place* involves understanding where you are in the world and being knowledgeable about the workings of the earth in that location. Additional themes that were initially independent but were later absorbed into the theme of *environmental literacy* were *environmentally conscious* and *nature*. When *nature* was discussed within standards it was usually with the goal of understanding its processes or how particular attributes of a place influenced human societies. Therefore, it could fit under this theme of understanding nature and the environment. The concept of *environmentally conscious* centered around a deeper understanding of how earth systems work, which also proved to fit under the larger theme of *environmental literacy*.

The criteria used to identify the theme of *hegemony* was dominance over others. Therefore, key aspects that fit this theme were imperialism, colonialism, and inequalities in social structures. A common term used in U.S. and world history course standards was "exploration". I determined that this term fit under the theme of *hegemony* because in most cases it resulted in domination over land, resources, or people. While "exploration" and similarly "expansion", have a more neutral connotation than does "exploitation", I placed these terms under the theme of *hegemony* as the consequences were often included as part of the standard. The theme of *exploitation* was coded separately initially but was later absorbed into the themes of *hegemony* and *capitalism*.

The criteria used to identify the theme of *sustainability* is an attempt to adjust how people today use resources so future generations can also enjoy them. This is closely connected to sustainable development which often calls for looking to new technology and tools to slow or lessen the impact humans are having on the environment. Ideas of alternative energy sources, discussion of renewable and nonrenewable, and conservation efforts fit under this theme.

The criteria used to identify the theme of *capitalism* were concepts connected to privatization, free trade, neoliberalism, and competition. Additionally, standards that discussed economic development, modernization, production, consumerism, industrialization, and consumption would fit under this theme. A separate theme I had coded for initially was *natural resources*. Most of the time, when mention of *natural resources* was presented, it was in economic courses and had to do with control of or competition over a scarce number of natural resources. Therefore, I encompassed most of those concepts into the theme of *capitalism*. Another theme that was initially coded separately was *globalization*. This term was often intertwined with concepts of *capitalism* and under revision was incorporated into this theme.

The criteria used to identify the theme of *critical pedagogy* were concepts related to questioning generally common-sense ideas and taking action to improve situations. I initially had *action taking, rights,* and *epistemologies* as three separate themes but included them into this overarching theme as they all embody aspects of critical pedagogy. Any Freirean concepts of consciousness rising, gaining an understanding of root causes of inequities, and different epistemologies were included in this theme.

One aspect that needed to be addressed with coding for the eight themes was that the themes are often interrelated, and standards potentially fit into two different themes. For example, distinguishing between *hegemony* and *capitalism* was difficult as the terms are often intertwined and dependent on one another. In this case, I determined which theme to fit the standard under by analyzing which theme appeared throughout the majority of the standard. Another criteria I looked for if a clear majority theme was not evident in a standard was an analysis of an overarching goal of the standard. Identifying key sentences or examples within standards was one way to find information for this criteria. I assessed how the standard made connections with the themes and determined if it did not make a connection. A standard would be included in a theme if the standard made a strong connection to a particular theme. A standard would not be included if it partially made a connection or had no connection.

While coding, one major decision that needed to be made, was how to look at the prevalence of my codes. Since there are so many different formats for how state standards are presented, simply looking at the number of standards would not give an accurate picture of how often and to the level of depth each state includes a discussion of these terms and ideas. Standards can be vague, looking at benchmarks or compelling questions associated with the standard offered more insight into how that standard was to be interpreted and what teaching it

could look like. Further, with a subject like world history, the mention of climate change might not refer to the modern notion of the changing climate but rather to the historical changes over time. When coding, I had to be careful about selecting a standard not simply for use of a word but for how concepts were explained in the context. Therefore, this study looks at the prevalence of key terms throughout the standards documents, not only the overarching standards, which are often much less descriptive.

While the prevalence of ecopedagogies is the overarching research question of this study, this study also looks at the context in which standards describe citizenship construction. Standards often come accompanied by supporting questions, benchmarks, or themes that offer insight into the aim of student learning. I examined all of these aspects and analyzed the word choice used within standards. I paid particular attention to relationships drawn between citizenship and the environment, along with questioning the current order and examining systemic causes of inequities. Words have great power to convey meaning or connect with greater phenomena, spark new ways of thinking, and question previously accepted ideas. While each state was formatted differently in how it approached standards, I analyzed the standards for any similarities or differences in how themes were mentioned.

By examining the extent to which high school social studies standards employ ecopedagogy, I could identify the degree to which teachers and students are presented with environmental concerns. Additionally, I learned if and how the environment is connected to concepts of citizenship and societal concerns. The study provides data on citizenship construction, including rights, responsibilities, duties, and obligations. This data gives insight into what states define as essential for students to learn and what is omitted. Additionally, I saw

the extent to which critical pedagogy skills such as problem-posing and reimagining new possibilities are presented in the standards.

This research method is appropriate because it allowed me to adjust themes as information emerged within the data. From there, I determined and concluded how different states are or are not implementing the concepts of ecopedagogy in the state social studies standards. This method also told me what information and whose knowledge is privileged by seeing what is included, excluded, or is given more emphasis and frequency within the standards. I was then able to identify any differences or nuances between states and regions to find how the U.S. as a whole is teaching students to be citizens and the prevalence of ecopedagogies within the standards. I looked at the data in a number of ways, I found trends by state and then brought the states within a region together to analyze the region as a whole. I then could find differences not only between individual states but between the four regions of the U.S. This allowed me to draw conclusions on the broader United States high school social studies standards and ecopedagogy. Additionally, I found trends in different courses of social studies.

Positionality

A limiting factor to this research is my positionality as a white, woman from the U.S. A second limiting factor is that all the articles and studies I analyzed are in the English language which may exclude valuable research and information. This is of particular importance as the foundations of ecopedagogy were established in Brazil. Further, I am a licensed and active 5-12 social studies teacher in Minnesota and therefore have prior experience interacting with the social studies standards and curriculum.

Limitations

One challenge to coding by course was that states divided the standards into different course groupings. For example, in California, the subjects were not established as they were in other states. These sets of standards fell under the subjects "Principles of American Democracy and Economics", "United States History and Geography: Continuity and Change in the Twentieth Century", and "World History, Culture, and Geography: The Modern World". Due to this organization. it was difficult to try to code by specific course areas. Other states more succinctly organized standards around courses such as "Geography" and "Civics". When I coded by subject in California, I used the first subject identified in the title to organize the data. Further, the social studies standards for Wyoming are not organized by subject but by content standards and benchmarks that can be taught in any of the traditional social studies subjects. Therefore, when analyzing the data by course, data from Wyoming was left out of the analysis. Comparing the regions proved difficult as there was great variation in organization of standards by state. If a different state from the region was selected and analyzed, perhaps the overall percentages would change for the entire region.

Another limiting factor is that this research only looks at the high school social studies level, which while important, may leave out valuable insight and information from other levels of education. Further, while this study gave insight into the different goals and emphasis of teaching the environment in social studies education in the U.S., it does not look at differences between and within other nations.

A limitation to using qualitative content analysis is that the researcher can fail to find essential categories and miss categories that are core to the data set. Additionally, while the researcher may identify categories, the reasoning for why those patterns emerge can differ.

While analyzing the standards of a state can provide information about the objectives and values, it does not give insight into how those standards are put into practice in the school setting. Further, this study does not examine how and to what extent science classes teach about the environment. Students first need to have a firm grasp of the ecological systems to then apply citizenship principles. Another limitation of this study is that it only collects data from twelve states in the United States and so while being representative of the U.S., as three states from the four major regions were selected, it is not comprehensive in the analysis of all social studies standards throughout the U.S.

Limitations with the themes

One limitation of the themes of this study is that different states require different social studies courses to graduate from high school. Even if an ecopedagogical theme is found in the standards and shows the objectives and skills students should have after completing a course, there is no guarantee a student will take all courses listed in the standards or learn them while in the class. There are several reasons why not all of the standards listed for a course are taught such as running out of time in the school year, and lack of knowledge, support, or resources for the educator. Further, one cannot assume that students will master a standard simply because it is stated in the standards, or that the student will act on the new knowledge.

On the other hand, students may also take elective social studies classes and therefore have greater exposure to ecopedagogical concepts. This study did not analyze any elective classes. One course that stood out for its potential to teach the concepts of ecopedagogy was from Mississippi. The elective social studies course was entitled "Problems of American Democracy". Additionally, schools can develop their own courses that meet standards but that is not documented in the state standards documents.

Limitations with the use of standards

One challenge with coding the standards was that the standards were vague at times or skimmed the surface of a more in-depth topic. Those standards offered the potential for incorporating the environment but fell short of explicitly mentioning or connecting to the environment. How an educator interprets the standards and how far in-depth they dive into the topics differs and this study did not collect or analyze that information.

Most states include an introduction to the standards which explains the role of standards for that state. Further, most states note that standards are not all-inclusive and should only serve as a guide to districts and teachers when determining curriculum. When educators look at the standards, they can apply concepts in a way they would like to teach. Therefore, in standards where it seemed obvious to include aspects of the environment, teachers may already be incorporating this into their teaching practices. This study does not look at the application of the standards in practice and thus is limited in drawing conclusions about the standards in practice.

Another limitation is that ecopedagogy is a practice that encompasses the action of teaching and interacting with students. Analyzing standards offered a limited view of how ecopedagogy could be playing out in the classroom. However, the data found in this study still offers insight into the role that the environment and critical pedagogy to create planetary citizens as educators and school administration look at what is deemed important by its place in the standards. Concepts that are included in the standards can offer insight into what a country or state wishes to emphasize. Standards provide the requirements and expectations for what educators should teach pupils in a content area. Therefore, the word choice, inclusion, or omission of certain concepts helps orchestrate what students will learn.

"Standards state what's expected for each student to acquire…. Standards describe what to teach, not how to teach" (California Department of Education, 1998, p.iv). By examining the standards, I could grasp what concepts were given power if they were explicitly stated or defined. If what is needed is an improvement in how people see their relationship with the rest of the environment as I have argued earlier, Wright (2016) argues one way to change a system is from within, not through a revolution. Therefore, incorporating ecopedagogical themes in the standards would be a way to achieve a change from within.

An additional limitation is that there are many curriculum maps, lesson plans and day-to-day outlines, for teachers to follow to teach the standards. Some states have official books published instructing teachers on how to implement the standards. This study did not analyze the many additional resources that educators may use to assist them in their daily practice. An obvious limitation of this study was the decision to use state standards to conduct research into ecopedagogy. Standards categorize information into segments and prescribe what teachers should teach. There are strong arguments against the standards movement that some have argued moves teaching from an art to a science, limiting what and how educators can teach. Further, Escobar (2020) argues that you cannot change an oppressive system using the same means the oppressor is using. To truly get insight into how students are learning about their relationship with the rest of the environment, a study would have to be conducted on the daily workings of critical educators.

Triangulation

To determine themes, I used a deductive approach initially. I determined which concepts would show evidence of ecopedagogy when I coded the standards the first time. After reviewing the coding of the standards into themes, I was able to revise my themes and use an inductive

approach to develop and adjust themes as they fit what the data represented. Then I coded the

data a second time. Additionally, both the data on the number of standards that fit in a theme and

the textual analysis offer valuable information on the extent to which ecopedagogies are found

within high school social studies standards in the U.S. Lastly, I had a second coder ensure

interrater reliability by coding a sample set of the standards into the themes. This study allows

conclusions to be drawn on the underlying meanings of how the social studies standards create

citizens and their connection or lack thereof to the environment.

CHAPTER FOUR

FINDINGS

After conducting my research, I found a variety of data by state, region, course, and theme. This section will document the findings of the research study. First, a brief overview of each region will be presented followed by the results and trends found in each state. Then, trends within each region will be documented followed by a comparison between regions. After this, trends by course will be presented. Lastly, the interrater reliability measures will be explained.

The total number of social studies standards differed by state, therefore solely looking at the number of standards that fit under a theme did not give me accurate information when comparing between regions. For example, Wyoming had only 47 social studies standards, while Mississippi had 445 standards. Comparing these numbers does not offer reliable conclusions thus, I found the percentage of prevalence of ecopedagogical themes in each state. A total of 2,587 standards were analyzed throughout all twelve states. 704 standards fit under one of the eight themes defined under ecopedagogy. This translates to 27.21% of the standards for all twelve states analyzed fitting under a theme of ecopedagogy.

The Midwest

The Midwest sample is composed of standards from Iowa, Minnesota, and South Dakota. Out of the Midwest region, 35.80% of standards were connected to a theme of ecopedagogy, just slightly under the Northeast. 145 out of 405 standards analyzed fit into one of the eight themes.

Iowa

In the state of Iowa, students are required to take three years of social sciences, including one-half unit of U.S. government and one unit of American history (Iowa Department of Education, 2018). Standards in Iowa are called the Iowa Core, which is skill-based and fueled by inquiry. Six inquiry anchor standards are taught in grades K-12. One of the inquiry anchor standards is 'taking informed action" which is closely tied to the coding theme of critical pedagogy (Iowa Department of Education, 2017, p. 35). Critical pedagogy calls on students to first learn about their world and then act to improve situations. Iowa has inquiry standards that fall under the inquiry anchor standards to provide specifics on what students should be able to do to show competence in a standard. Further, there are content anchor standards specific to each grade with multiple standards falling under each content anchor. The standards state what students should be able to do, while anchor standards encompass the standards and provide a broad theme rather than objectives for learning. Anchor standards are not included in this analysis as they only offer a few words that depict a broad idea rather than information about what should be taught.

Standards for the state of Iowa are broken down into subjects of civics, geography, U.S. history, world history, and economics. Each of these subjects was analyzed for the study. Of the five courses analyzed, there were a total of 69 social studies standards from Iowa that were coded under a theme. Literacy standards also are part of Iowa's social studies standards, identifying reading and writing standards students should achieve through social studies classes. For this research, the literacy set of standards was not included in the analysis as they had little or no importance when examining ecopedagogies.

Iowa standards were coded as follows: 2 Anthropocene, 0 planetary citizenship, 0 climate change, 9 environmental literacy, 2 hegemony, 0 sustainability, 5 capitalism, and 5 critical pedagogy. This created a total of 23 occurrences of an ecopedagogical theme throughout the standards or a 33.33% prevalence. The most prevalent theme identified in Iowa was *environmental literacy* (Iowa Department of Education, 2017).

Minnesota

In the state of Minnesota, students must take three and a half credits of social studies classes. Minnesota has four strands that students will take over the course of their high school career. These include a half-credit for citizenship and government, a half-credit for economics, a half-credit for geography, one credit for U.S. History, and one credit for world history (Minnesota Department of Education, 2018).

The format of standards in Minnesota is organized into strands that match up with common courses and are divided into sub-strands. Standards fall under sub-strands, and benchmarks show what students should be able to do to show they have met the standard. Minnesota standards are set up to all begin with "Understand that…" followed by one or more benchmarks that identify what students should be able to do to show their understanding of a concept or skill. Both standards and the associated benchmarks were coded in this study. Minnesota is currently working on updating the social studies standards. A third draft of the standards was introduced in November of 2021. The new standards are being revised with the goal of implementation for the 2026-2027 school year.

The social studies courses analyzed in this study were citizenship and government, U.S. history, world history, geography, and economics. Standards in Minnesota were coded as follows: 5 Anthropocene, 1 planetary citizenship, 0 climate change, 18 environmental literacy,

20 hegemony, 0 sustainability, 31 capitalism, and 12 critical pedagogy. This created a total of 87 occurrences of ecopedagogical themes throughout the standards or a 45.31% prevalence. The most prevalent theme identified in Minnesota was *capitalism* (Minnesota Department of Education, 2011).

South Dakota

In the state of South Dakota, students are required to take three units of social studies credit to graduate from high school (South Dakota Board of Education, 2018). South Dakota has anchor standards which are the same for each grade, as well as grade-level standards, which identify the specific outcomes by grade. Anchor standards offer insight into what students should be able to do and therefore are included in this analysis along with grade-level standards.

The social studies courses analyzed in this study were civics/government, geography, world history, U.S. history, and economics. Standards in South Dakota were coded as follows: 3 Anthropocene, 0 planetary citizenship, 0 climate change, 10 environmental literacy, 1 hegemony, 0 sustainability, 10 capitalism, and 11 critical pedagogy. This created a total of 35 occurrences of ecopedagogical themes throughout the standards or a 24.41% prevalence. The most prevalent theme identified in South Dakota is *critical pedagogy* (South Dakota Department of Education, 2015).

The West

The states making up the West encompassed standards from California, Nevada, and Wyoming. Out of this sample, 95 out of 425 standards analyzed fit into one of the ecopedagogical themes. Said differently, 22.35% of standards relating to ecopedagogy were found in this region of the U.S.

California

The state of California requires three years of social studies courses. One year of U.S. history and geography, one year of world history, culture, and geography, one semester of American government, and one semester of economics. The high school social studies standards for California describe the standards through three grade levels; (1) Grade Ten World History, Culture and Geography: The Modern World; (2) Grade Eleven: United States History and Geography: Continuity and Change in the Twentieth Century; (3) Grade Twelve: Principles of American Democracy and Economics. California's social studies standards begin with an overarching standard with additional standards fitting under it. There are 38 overarching standards and 202 standards for a total of 240 standards in social studies at the high school level in California (California Department of Education, 2021).

The social studies courses analyzed in this study were principles of American democracy & economics, world history, culture & geography, and U.S. history & geography. Standards in California were coded as follows: 1 Anthropocene, 0 planetary citizenship, 0 climate change, 7 environmental literacy, 11 hegemony, 0 sustainability, 17 capitalism, and 3 critical pedagogy. This created a total of 39 occurrences of ecopedagogical themes throughout the standards or a 16.25% prevalence. The most prevalent theme identified in California is *capitalism* (California State Board of Education, 1998).

Nevada

The state of Nevada updated its social studies standards in 2018. High school students are required to take a minimum of three units of social studies credit in "(1) American government; (2) American history; and (3) World history or geography" (Nevada Department of Education, 2018a, p.1). There are only three subjects listed in the high school social studies standards. These

include (1) Civics and Economics, (2) World History & Geography, and (3) US History (Nevada Department of Education, 2018a).

The structure of social studies standards in Nevada are organized by disciplinary skills which are broad actions and skills students should practice in social studies. This is followed by disciplinary skills standards which identify the application with the specific content of the course. Content themes identify overarching aspects relevant to social studies that provide guidance and finally there are course-specific standards that describe how the themes are to be actualized in different courses.

With content themes and disciplinary skills helping to organize standards there is a lot of potential for examples to fit under the broad categories, however, what was more essential to understanding the research questions was examining how the content themes and disciplinary skills influence the standards. Therefore, only standards were measured in this analysis and not the content themes or disciplinary skills. Of importance are the six disciplinary skills which are the same from kindergarten through grade 12 but become more complex as grade level increases. Three of the disciplinary skills have components that align with ecopedagogy; "taking informed action", "constructing compelling questions", and "communicating and critiquing questions" (Nevada Department of Education, 2018b).

The social studies courses analyzed in this study were civics & economics, world history & geography, and U.S. history (1877-present). Standards in Nevada were coded as follows: 2 Anthropocene, 0 planetary citizenship, 0 climate change, 5 environmental literacy, 3 hegemony, 0 sustainability, 11 capitalism, and 15 critical pedagogy. This created a total of 36 occurrences of ecopedagogical themes throughout the standards or a 26.09% prevalence. The most prevalent theme identified in Nevada is *critical pedagogy* (Nevada Department of Education, 2018b).

Wyoming

The state of Wyoming requires "Three (3) school years of social studies, including history, American government, and economic systems and institutions…" (Wyoming State Board of Education, 2018). Wyoming social studies standards were published in 2014 and revised in 2018 to include the addition of Native American content related to the standard. This study looked at the 2014 and 2018 additions to the standards as they offer new specifics on what students should know.

Wyoming has six content standards, which encompass benchmarks, and performance level descriptors. The state of Wyoming was unique in that it did not break down the standards into typical subjects or courses that the standards could be found in. Rather, the standards were presented in a way that they could be applied to whichever course was most appropriate as long as the standards were met by the end of certain years. Therefore, this data was pulled from the benchmarks that were required to graduate by grade twelve.

Standards in Wyoming were coded as follows: 1 Anthropocene, 0 planetary citizenship, 1 climate change, 6 environmental literacy, 6 hegemony, 0 sustainability, 4 capitalism, and 2 critical pedagogy. This created a total of 32 occurrences of an ecopedagogical theme throughout the standards or a 42.55% prevalence. The most prevalent themes identified in Wyoming were *environmental literacy* and *hegemony* (Wyoming Department of Education, 2018).

<div align="center">

The Northeast

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The Northeast sample is composed of standards from Connecticut, Massachusetts, and New Hampshire. Out of this region, 35.87% of standards fit with the themes of ecopedagogy, the most out of the four regions analyzed. 250 out of 697 standards fit into one of the ecopedagogical themes.

Connecticut

Students in Connecticut are required to take three credits of social studies with "at least a one-half credit course on civics and American government…" (State of Connecticut, 2017). Standards in Connecticut are inquiry-focused and skill-based. Connecticut has four dimensions that encompass all of the social studies standards. "Developing questions and planning inquiry, applying disciplinary concepts and tools, evaluating sources and using evidence and communicating conclusions and taking informed action" (Connecticut State Department of Education, 2015).

The standards are organized by themes which are overarching ideas that align with courses. Content standards give more specific aspects that fit under themes. Compelling questions are larger questions to stimulate students' understanding of materials. Supporting questions assist in the process of a deeper understanding of the compelling question.

The social studies courses analyzed in this study were economics, U.S. history, modern world history, geography, and civics (Connecticut State Department of Education, 2015). Standards in Connecticut were coded as follows: 7 Anthropocene, 0 planetary citizenship, 1 climate change, 15 environmental literacy, 17 hegemony, 1 sustainability, 37 capitalism, and 35 critical pedagogy. This created a total of 113 occurrences of ecopedagogical themes throughout the standards or a 38.70% prevalence. The most prevalent theme identified in Connecticut was *capitalism* (Connecticut State Department of Education, 2015).

Massachusetts

The state of Massachusetts requires "at least four courses in U.S. History, World History and the social sciences" (Massachusetts Department of Elementary and Secondary Education,

2018, p. 117). Standards are organized with overarching topics, compelling questions, and supporting questions.

The social studies courses analyzed in Massachusetts were U.S. history, world history, economics, and government & politics (Massachusetts Department of Elementary and Secondary Education, 2018). Standards in Massachusetts were coded as follows: 0 Anthropocene, 0 planetary citizenship, 0 climate change, 8 environmental literacy, 18 hegemony, 0 sustainability, 22 capitalism, and 12 critical pedagogy. This created a total of 61 occurrences of ecopedagogical themes throughout the standards or a 21.90% prevalence. The most prevalent theme identified in Massachusetts is *capitalism* (Massachusetts Department of Elementary and Secondary Education, 2018).

New Hampshire

The state of New Hampshire requires students to take five credits of social studies courses to meet the graduation requirements (New Hampshire Department of Education, 2005). New Hampshire has ten general themes that apply to the different social studies classes and are very broad. This is followed by standards and sub-standards which define in detail what students are expected to learn from a course.

The social studies courses analyzed for New Hampshire were civics and government, geography, U.S. history, and world history (New Hampshire Department of Education, 2006). Standards in New Hampshire were coded as follows: 1 Anthropocene, 2 planetary citizenship, 1 climate change, 21 environmental literacy, 15 hegemony, 2 sustainability, 30 capitalism, and 5 critical pedagogy. This created a total of 77 occurrences of ecopedagogical themes throughout the standards or a 58.78% prevalence. The most prevalent theme identified in New Hampshire was *capitalism* (New Hampshire Department of Education, 2006).

The South

The region of the South is composed of standards from Georgia, Mississippi, and South Carolina. Out of this region, 20.19% of standards relating to themes of ecopedagogy were found in this region of the U.S., the smallest amount out of the four regions analyzed.

Georgia

The state of Georgia requires three social studies credits to graduate from high school (Georgia Department of Education, 2011). The social studies subjects analyzed in this study were: American government/civics, U.S. history, world geography, and world history (Georgia Department of Education, 2016).

Standards in Georgia were coded as follows: 1 Anthropocene, 0 planetary citizenship, 0 climate change, 8 environmental literacy, 24 hegemony, 1 sustainability, 20 capitalism, and 7 critical pedagogy. This created a total of 77 occurrences of ecopedagogy throughout the standards or a 15.17% prevalence. The most prevalent theme identified in Georgia is *hegemony* (Georgia Department of Education, 2016).

Mississippi

The state of Mississippi requires three and a half social studies credits for graduation (Mississippi Department of Education, 2013). Mississippi has five essential content strands under which the different subjects are organized. The social studies courses analyzed in this study were: government, introduction to geography, advanced geography, U.S. history, world history, and economics (Mississippi Department of Education, 2018).

Standards in Mississippi were coded as follows: 12 Anthropocene, 0 planetary citizenship, 1 climate change, 19 environmental literacy, 12 hegemony, 2 sustainability, 13 capitalism, and 12 critical pedagogy. This created a total of 71 occurrences of ecopedagogical

themes throughout the standards or a 15.96% prevalence. The most prevalent theme identified in Mississippi is *environmental literacy* (Mississippi Department of Education, 2018).

South Carolina

The state of South Carolina requires one credit in U.S. history and constitution, one-half credit in economics, one-half credit in U.S. government, and one credit in other social studies courses to graduate from high school (South Carolina Department of Education, 2018). The social studies courses analyzed in this study were: U.S. government, human geography, modern world history, economics, and U.S. history & the constitution (South Carolina Department of Education, 2019). Standards in South Carolina begin with key concepts and themes followed by standards, enduring understandings, indicators, and expressions. Expressions describe what the students should be able to do to show they have met the standard.

Standards in South Carolina were coded as follows: 4 Anthropocene, 1 planetary citizenship, 0 climate change, 17 environmental literacy, 16 hegemony, 2 sustainability, 31 capitalism, and 11 critical pedagogy. This created a total of 82 occurrences of ecopedagogical themes throughout the standards or a 38.50% prevalence. The most prevalent theme identified in South Carolina was *capitalism* (South Carolina Department of Education, 2019).

Trends by Region

In the Midwest, an average of 35.80% of the ecopedagogical themes occurred throughout the social studies standards. The theme that occurred the most in the Midwest was *capitalism* with 46 instances. Two themes, *sustainability,* and *climate change* did not appear throughout the Midwest. Minnesota showed the clearest data for incorporating ecopedagogies in the construction of citizenship.

Table 1. Prevalence of Themes by State

Themes	Anthropocene	Planetary citizenship	Climate change	Environmental Literacy	Hegemony	Sustainability	Capitalism	Critical Pedagogy	TOTAL	Out of total standards	Percentage in standards
Iowa	2	0	0	9	2	0	5	5	23	69	33.33%
Minnesota	5	1	0	18	20	0	31	12	87	192	45.31%
South Dakota	3	0	0	10	1	0	10	11	35	144	24.31%
Total Midwest	10	1	0	37	23	0	46	28	145	405	35.80%
California	1	0	0	7	11	0	17	3	39	240	16.25%
Nevada	2	0	0	5	3	0	11	15	36	138	26.09%
Wyoming	1	0	1	6	6	0	4	2	20	47	42.55%
Total West	4	0	1	18	20	0	32	20	95	425	22.35%
Connecticut	7	0	1	15	17	1	37	35	113	292	38.70%
Massachusetts	0	0	0	8	18	0	22	12	60	274	21.90%
New Hampshire	1	2	1	21	15	2	30	5	77	131	58.78%
Total Northeast	8	2	2	44	50	3	89	52	250	697	35.87%
Georgia	1	0	0	8	24	1	20	7	61	402	15.17%
Mississippi	12	0	1	19	12	2	13	12	71	445	15.96%
South Carolina	4	1	0	17	16	2	31	11	82	213	38.50%
Total South	17	1	1	44	52	5	64	30	214	1,060	20.19%
TOTAL	39	4	4	143	145	8	231	130	704	2,587	27.21%

The table shows the number of standards that were coded into the different themes by state.

In the region of the West, an average of 22.35% of the themes occurred throughout the social studies standards. While Wyoming has fewer standards than California and Nevada, Wyoming presented the highest percentage of ecopedagogy themes. The most prevalent theme identified in the West as a region was *capitalism*.

In the Northeast, the themes of ecopedagogy occurred at an average of 35.87%. The most prevalent theme identified throughout the Northeast was *capitalism*. New Hampshire clearly incorporated aspects of ecopedagogy into its standards more than other states in the region. In fact, New Hampshire showed the highest percentage out of all twelve states analyzed. *Environmental literacy* and *planetary citizenship* occurred most often in the state of New Hampshire. Out of all the states, *capitalism* occurred the most in the state of Connecticut (Connecticut State Department of Education, 2015).

When analyzing where themes occurred most frequently by region *planetary citizenship, climate change,* and *capitalism* was found most often in the Northeast. The theme of *environmental literacy* tied for occurring most often in the Northeast with the South.
In the South, an average of 20.19% of the themes occurred throughout the social studies standards. The most prevalent theme identified in the South was *capitalism*. *Anthropocene*, the theme with one of the closest connections to ecopedagogy had the highest prevalence in the South with 17 out of 39 being identified in this region.

When analyzing for occurrences of themes overall, *hegemony* and *sustainability* occurred most frequently in the South; the theme of *environmental literacy* was tied for most prevalence in the South with the Northeast. Out of all of the states, *Anthropocene* was found 12 times in Mississippi, which was the highest amount of the theme (Mississippi Department of Education,

2018). *Hegemony* occurred the most in the state of Georgia with 24 standards (Georgia Department of Education, 2016).

In the previous section, I compared characteristics that emerged from each state and found trends within each region due to prevalence. In this section, I will examine a textual analysis and median representative from each region to compare across regions. Aligned with the goals of content analysis, I will consolidate data to offer insight into "a society's larger political, attitudinal, and value trends" (Krippendorff, 2018, p. 12). This includes generating similarities and distinctions across the U.S. and developing an overarching conclusion on the prevalence of ecopedagogy in U.S. social studies standards.

Comparison between regions

The region with the highest percentage of concepts relating to ecopedagogy was the Northeast with 35.87%, a .08% lead over the Midwest region which had a 35.80% prevalence. The West had a 22.35% prevalence of ecopedagogical themes, and the South had the least clear connection with teaching ecopedagogies with a 20.19% prevalence found throughout the standards. The Northeast region of the U.S., as the foundation of the U.S. as a country, has been a leader in advancing education. This data suggests that the Northeast region is also a leader in teaching ecopedagogy in the social studies standards. While no region provided sufficient evidence of embracing ecopedagogy, the Northeast is currently the best example to look to.

An interesting note from Nevada's state standards is that the two documents noted in the works cited are the National Council for the Social Studies, which serves as a framework for social studies standards throughout all fifty states, and Iowa's social studies standards. This brings forth the idea that states look to each other when writing and revising their standards and perhaps states that are leaders in education or have similar values can serve as inspiration for

other states. States also often look to the NCSS and C3 Framework when writing and revising social studies standards. If most states are getting inspiration from a core set of guidelines, perhaps those documents require examination and reevaluation.

The theme that was most common in every region was *capitalism*. *Capitalism* was the most documented theme found in the states of Minnesota, California Connecticut, Massachusetts, New Hampshire, and South Carolina. This speaks to the pervasiveness of capitalism in the U.S. In some cases, American identity seems inseparable from capitalism. *Critical pedagogy* was the most common theme found in the states of South Dakota and Nevada. In Wyoming and Georgia, the most prevalent theme to be found was *hegemony*. Lastly, *environmental literacy* was the most documented theme found in the states of Iowa, Wyoming (tied with *hegemony*), and Mississippi.

Trends by Course

When analyzing the data by the subjects; civics/government, history (both U.S. and world), geography, economics, or other, (other is defined as by no clear subject such as major themes, or social studies skills that are not set to a particular class), 12.64% of ecopedagogical themed standards were identified under the subject civics/government. 49.72% of standards were identified under the subject history. 26.43% of the standards were identified under geography. 8.38% of standards were identified under the subject of economics. 2.84% of standards identified did not have a specific course they were identified in.

The theme that occurred the most often in history courses was capitalism. Geography courses most often incorporated the theme of environmental literacy. Civics/government courses encompassed the theme of critical pedagogy more than other themes. In economics course standards, capitalism was the theme that occurred most often. Lastly, courses that did not fit

under these common social studies classes were defined as other and a tie emerged between

environmental literacy and hegemony for occurred most often in such classes.

Table 2. Prevalence of Themes by Course

Themes	Anthropocene	Planetary citizenship	Climate change	Environmental Literacy	Hegemony	Sustainability	Capitalism	Critical Pedagogy	Total	Subject out of total
Civics/Government	6	2	1	11	3	1	15	50	89	12.64%
History (US & World)	6	2	2	43	111	0	123	63	350	49.72%
Geography	25	0	0	79	24	7	39	12	186	26.42%
Economics	0	0	0	5	1	0	50	3	59	8.38%
Other	1	0	1	6	6	0	4	2	20	2.84%
Total	39	4	4	143	145	8	231	130	704	100%

This table breaks down where themes in standards were found by different courses in the social sciences.

Interrater Reliability

To check for interrater reliability, I numbered all the standards I had found by theme. I

counted the number of standards that I had found under each theme and calculated the square

root to determine how many of each theme should be used in a sample. I then used a random

number generator to pick the number of standards that would be coded by a second coder. I

trained the second coder on how to code for the themes in this study. I created a google form

with the definitions used to explain each theme and the criteria used to distinguish if a standard

fit under a particular theme. Then the second coder read a total of 63 of the selected standards

and determined which theme the standard fit into. The interrater reliability test showed an

87.30% accuracy when compared with how I coded the standards under themes of ecopedagogy

to the second coder. *Hegemony* and *capitalism* were the least consistent themes to be coded,

which could be due to how close they are in definition and criteria to one another. It should be

noted that the second coder did not analyze standards that did not fit under a theme through my

own analysis.

Table 3. Interrater Reliability

Themes	Occurrences in standards	Interrater Test Sample Amount	Identified the same by 2nd Coder	Percentage Accuracy of Interrater reliability
Anthropocene	39	6	6	100%
Planetary citizenship	4	2	2	100%
Climate change	4	2	2	100%
Environmental Literacy	143	12	11	91.67%
Hegemony	145	12	8	66.67%
Sustainability	8	3	3	100%
Capitalism	231	15	12	80%
Critical Ped	130	11	11	100%
TOTAL	704	63	55	**87.30%**

The interrater reliability table shows how many standards from each theme were selected as well as how the second coder identified which theme the standards fit into.

The findings section of the paper documented the results found from this study. Data was

documented by individual state, followed by trends within each of the four regions. This was

followed by a comparison between regions and trends found by course. Lastly, interrater

reliability measures were documented. This data offers insight into where the themes of

ecopedagogy were present throughout the social studies standards. The next section will discuss

what the findings and the implications of this study.

CHAPTER FIVE

DISCUSSION

Chapter Five will discuss the findings and trends of this study. Conclusions will be made for the differences in the use of ecopedagogies in the social studies standards between states, regions, and courses. This section will also look at possible reasons for these differences and the implications for the use of ecopedagogies in the construction of citizenship through high school social studies standards in the United States. This section will begin by discussing the trends that emerged by course. This will be followed by trends found by theme. Following this recommendations for further research and conclusions will be made.

The research questions this study sought to answer were: What is the prevalence of ecopedagogies in the construction of citizenship in U.S. high school social studies standards? How does the U.S. construct planetary and environmentally conscious citizens? What is the relationship between citizenship and the environment in the social studies standards? What differences are there by state in teaching ecopedagogy in the social studies standards?

The results indicate that major themes of ecopedagogy are present throughout the social studies standards but to a limited extent. All of the states, regions and, courses bring forth some of the themes of ecopedagogy however there are differences throughout the U.S. and no state shows a prevalence of ecopedagogy higher than 36%. No state embraced planetary citizenship or incorporated ecopedagogical themes that truly called into question the capitalist economy in the U.S. To see a real change in how citizens are taught to understand the rest of the environment, a

more pervasive inclusion of ecopedagogies is needed throughout the U.S. high school social studies standards.

While the numerical data offers insight into the prevalence of ecopedagogies throughout the standards, another key aspect that was coded for was the use of language. This section will interpret the descriptive analysis of standards. When analyzing the language, I looked for key themes related to ecopedagogy and areas of potential use but where there was a clear omission of the environment. The overall lack of specificity or emphasis of the ecopedagogical themes in the standards shows a lack of importance.

When analyzing the trends that emerged from the data it is essential to acknowledge that each state has a unique history and different political leanings as well as leaders that can dictate and direct education. One clear conclusion is the lack of consistency between states. The state that one is educated in can lead to differences in what is learned and emphasized within social studies standards. This may provide insight into the focus on national citizenry in the U.S. before global or planetary citizenship is reached. Under each major subject, a descriptive analysis will be given on the most common themes to emerge and the implications.

Trends by Course

Civics/Government

Standards for civics and government are often action-oriented and skill-based, identifying what people and citizens can do. The most common theme to appear in civics/government course standards was *critical pedagogy*, followed by *capitalism* and *environmental literacy*. The least common themes identified under these courses were *climate change* and *sustainability*. Civics/government course standards accounted for 89 out of 704 standards analyzed or 12.64% of standards connected to ecopedagogy.

Standard CIV 9-12.11 from the civics course in Connecticut shows a typical standard coded for *critical pedagogy*. "Evaluate multiple procedures for making governmental decisions at the local, state, national, and international levels in terms of the civic purposes achieved." (Connecticut State Department of Education, 2015, P. 108). The action orientation associated with civics made for clear a connection with *critical pedagogy*. While the environment was not mentioned in this standard, students and teachers could look at a variety of modern issues to understand how government works on multiple levels in the United States and how citizens can take action in pursuit of change. Civic environmentalism (Hollstein & Smith, 2020) could fit into many of these open-ended civic standards that don't tie students to particular issues but focus more on the processes and skills involved with understanding government and developing one's sense of citizenship. Additionally, civics courses often begin with a focus on the local community which can be a place where care for the environment is initiated and expands to other areas (Dobson, 2005).

Civics and government standards did not include the extension of rights to animals, plants, or the earth in general. Rights are a core concept in citizenship and civics classes, and standards could document this growing call, as Shiva (2005) has advocated for, of Earth Rights. Examining rights and responsibilities also requires the exploration of differing environmental conditions throughout the world and the right to a healthy environment (Assembly U.G., 1998). Civics and government standards are most adept to include these ecopedagogical perspectives of rights, but there was not sufficient evidence of these concepts in this study.

Standards that were aligned with *environmental literacy*, when found in civics and government courses often emphasized a sense of place, connection to the systems of that place, and how the place has changed over time. Standard 9-12.G.7.1 states "Analyze key processes

that have resulted in changes within Earth's physical and human systems" (South Dakota

Department of Education, 2015, p. 36). This standard requires students to examine the changes

that have occurred to the environment as well as to the people connected to that place. To be an

informed and active citizen, one has to understand how the environment works. This concept

should be more regularly seen throughout civics and government standards.

Economics

The most common theme to appear in economics course standards was *capitalism*. Four

themes did not occur at all in the analysis of economics course standards: *Anthropocene*,

planetary citizenship, climate change, and *sustainability*. Economics course standards accounted

for 59 out of 704 standards analyzed or 2.84% of standards connected to ecopedagogy.

One clear example of *capitalism* from an economics course is standard 9.2.4.7.3

> Describe commodities as natural resources necessary to produce goods and services;
> explain how world events and market speculation can affect commodity and other prices.
> For example, Commodities—grains, minerals, oil, fruits, natural gas, wood. Effects—
> unrest in oil-producing nations raises the price of oil which raises the cost of energy of
> producing many goods and services (Minnesota Department of Education, 2011, p. 113).

This standard describes resources found in the environment as something to profit from and

control. Perspectives of resource control such as this were common throughout economic

standards and point to the expansiveness of capitalism as part of U.S. society and the

unquestioning entitlement humans feel over the environment. Further, the term "resources"

shows what and why some aspects of the environment are deemed valuable to humans. This idea

of the value of the environment as dependent on human need of it is often left unquestioned

throughout the standards. This sends messages to students that the purpose of "resources" is to be

used by humans rather than understood as valuable in their own right.

To further this point, standards often state that citizens should know how to compete in

the labor market. This can be observed in the following standard "Understanding basic economic

concepts allows students to adequately compete for resources in the marketplace" (South

Carolina Department of Education, 2019, p.129). This rhetoric teaches students to value

individualism over cooperation and promotes the idea that humans should have ownership over

parts of the environment. These capitalist concepts were most often found in economics courses

and provide great barriers to the principles of ecopedagogy. A fuller depiction of the

consequences of capitalism and a greater critique of free-market systems is essential in economic

standards throughout the U.S.

History (US & World)

The most common themes to appear in history course standards were *capitalism* and

hegemony. History standards accounted for 350 out of 704 social studies standards analyzed, or

49.72%. The theme least identified in the history course standards was *sustainability*. Out of all

the courses analyzed, *capitalism* occurred most frequently in history standards, with 123

occurrences. Additionally, *critical pedagogy* occurred most frequently in history standards, with

63 occurrences.

The Minnesota U.S. history standards offered multiple clear examples of conquest,

colonization, capitalism, and the impact on the environment. For example, standard 9.4.4.16.1 is

as follows

> …colonization and settlement and the exploitation of indigenous peoples and lands;
> colonial development evoked varied responses by indigenous nations and produced
> regional societies and economies that included imported slave labor and distinct forms of
> local government. Analyze the consequences of the transatlantic Columbian Exchange of
> peoples, animals, plants and pathogens on North American societies and ecosystems
> (Minnesota Department of Education, 2011, p. 136).

This standard identifies the importance of knowing the impact of colonization on the environment and indigenous peoples. Further, it includes strong word choice to depict the reality of past events by using the word *exploitation*. This standard was coded under *hegemony*. *Hegemony* occurred most frequently in history courses, with 111 occurrences.

Not all standards provide a thorough understanding for students to grasp. A standard from the U.S. history standards that only looks at one side of a historical event is "Examine how mass production and advertising led to increasing consumerism, including Henry Ford and the automobile." (Georgia Department of Education, 2016, p. 77). This standard brings up essential components of *capitalism* but falls short of looking at the consequences of mass production and increasing consumerism. This standard fell under a larger standard that asked students to make connections between big business and technological innovations. There is a potential to adjust this standard to analyze both the positive and negative repercussions. It was not uncommon to find standards that left out arguments that countered capitalist norms or other concepts that paint the United States as superior.

Geography

The most common themes to appear in geography course standards were *environmental literacy* and *capitalism*. Out of all the courses analyzed, *Anthropocene, environmental literacy,* and *sustainability* were found most often in geography course standards. *Anthropocene* occurred 25 times, *environmental literacy* occurred 79 times, and *sustainability* occurred 7 times. Geography standards accounted for 186 out of 704 standards relating to themes of ecopedagogy, or 26.42%.

Unsurprisingly, geography was continuously a subject that made very explicit the human-environment interactions, which most often fell under the theme of *environmental literacy*. For

example, 9.3.4.9.1 states "The environment influences human actions; and humans both adapt to and change, the environment…Analyze the interconnectedness of the environment and human activities (including the use of technology, and the impacts of one upon the other)" (Minnesota Department of Education, 2011, p. 123). Geography served as a course that most frequently brought together a sense of place with humans' role in conjunction with the rest of the environment. A repeated concept throughout geography course standards was a call for a greater understanding of human-environment connections. This concept often required understanding the influences that the environment has on people while often not articulating how humans have influenced the environment. Further, geography courses often had space to explicitly discuss multiple epistemologies and ways of being in the world, but it was rare to find this documented within the standards. There needs to be greater emphasis on the multiple ways people live and interact with the environment. Geography course standards offer the clearest route to include these ecopedagogical concepts.

Trends by Theme

In the introduction to the social studies standards, Massachusetts describes the role of the standards in helping youth understand the current state of the world, policies at multiple levels of government, the importance of civic engagement, and perspective-taking. Further, there is an emphasis on taking action to improve situations (Massachusetts Department of Elementary and Secondary Education, 2018). This statement along with other related materials provided for the consciousness rising and action orientation of *critical pedagogy*. Although this is not taken from a particular standard, it shows the aims of the standards document and matched well with some ecopedagogical themes.

Within each state, some standards stood out as fitting the themes exceptionally well.

There were also areas where there was potential to include the environment or broad ecopedagogical concepts, but where it was not included. Some standards contain word choice that varied within standards such as standard 9-12.H.3.1, which is as follows, "Analyze the ways in which the perspectives of those writing history shaped the history they produced in relation to exploration, imperialism, and expansion" (South Dakota Department of Education, 2015, p.40). This explicit use of *imperialism* implies the colonial forces at play but terms such as *exploration* and *expansion* do not carry the same weight. The inclusion of *imperialism* shows educators the connotation through which the events can be taught. Additionally, understanding different perspectives is an essential historical thinking skill that falls under the theme of critical pedagogy.

Many standards are vague or fall just short of the clear inclusion into the themes of ecopedagogy. One example is from standard 9.4.3.10.4 "Describe the interactions and negotiations between Americans and European explorers, as well as the consequences" (Minnesota Department of Education, 2011, p. 129). Educators may include the environment or implications of epistemological imperialism but there is no clear connection made as to what the consequences of the interactions and negotiations are simply by what is stated in the standard. Standard 11.6.3 from California shows the potential to include aspects of the environment but is not explicitly stated. It is as follows, "Discuss the human toll of the Depression, natural disasters, and unwise agricultural practices and their effect on the depopulation of rural regions and on political movements…" (California State Board of Education, 1998, p. 50). There is the space to include the toll on the environment in this standard as it relates to the rest of the topics included in this standard, however, the impact on the environment is not included.

One supporting question from the standards that connects with ecopedagogy is "To what extent are national economies influenced by their physical environment (e.g., natural resource availability, access to water routes)?" (Connecticut State Department of Education, 2015. p.123). This draws a clear connection for students to determine the relationship between capitalism and environmental exploitation. A standard from Wyoming that exemplifies ecopedagogy is SS12.5.4 "Analyze how environmental changes and modifications positively and negatively affect communities, tribes and the world both economically and socially" (Wyoming Department of Education, 2018, p.30). This standard articulates an interaction between the environment and humans with clear attention placed on the consequences.

The state of Connecticut had standards that were structured with compelling and supporting questions. This format is most aligned with the theme of *critical pedagogy.* Although the questions did not offer specific instructions, they were designed to make students question big systems and structures at play in the U.S. and the world, such as with the compelling question "What is modern?" (Connecticut State Department of Education, 2015, p. 122). This use of problem-posing throughout the standards was the closest connection to critical pedagogy found out of the states analyzed. This offers the opportunity for students to question and reimagine the current systems of the world.

None of the twelve state standards reached the extent of educating for *planetary citizenship*, although more encompassing ideas of citizenship were seen in a few standards. The states analyzed in the region of the West had no indications of *planetary citizenship*. South Carolina discusses "being an active member in global society" (South Carolina Department of Education, 2019, p.97). That standard goes on to discuss global citizenship. New Hampshire comes closest to articulating *planetary citizenship* with theme H "role of citizen as member of a

world community" (New Hampshire Department of Education, 2006, p.11). This emphasis as part of a community that encompasses the world does not directly state the environment, but it offers the largest realm of community. In addition, New Hampshire also mentions the roles of citizenship in community, nation, and world (New Hampshire Department of Education, 2006). *Planetary citizenship* was one of the least mentioned themes throughout the standards which shows the U.S. is a long way off from bringing humans on an equal level with the rest of the environment in all states except for New Hampshire. There are no major trends to note by region as planetary citizenship was so sparsely mentioned.

Environmental literacy* was a common theme throughout all of the twelve states, it occurred most often in New Hampshire. The course geography offered the clearest examples of developing *environmental literacy*. The West offered the least conclusive evidence of enhancing *environmental literacy*. An exemplary standard from South Dakota states, "Elaborate upon the interaction of physical and human systems and their influence on current and future condition." (South Dakota Department of Education, 2015, p. 36). Many states touch on the human-environment connection and understanding the physical processes at play. To answer the research question: how does the U.S. construct planetary and environmentally conscious citizens? It is evident that the U.S. social studies standards do not construct planetary citizens. There could be an argument made that students are becoming more environmentally conscious citizens through their social studies coursework, but other forms of citizenship appear more apparent and common in the sample states.

The theme of *critical pedagogy* has been embraced by the Northeast region and the state of Connecticut. The states that came closest to embracing ecopedagogy in citizenship construction often had inquiry or question-based standards that encouraged students to examine

root causes and the large systems at play in creating the world as it presently is. For example, one supporting question from Massachusetts is as follows "Industrialists have been called "Captains of Industry" and "Robber Barons." Which title is more appropriate for them and why?" (Massachusetts Department of Elementary and Secondary Education, 2018, p. 123). Questions such as this within the standards ask students to examine different perspectives and determine their own stance with evidence. This question in the standards also lets students decide how they view industrialists rather than being told how to view industrialists. Another example of a question found in a standards documents is from Connecticut "What accounts for the frequent human rights violations in the modern world?" (Connecticut State Department of Education, 2015, p. 126). This supporting question is connected to the theme "rights and responsibilities of citizens" and challenges students to get to the root cause of inequities. Standards in the Northeast region most frequently offered compelling and supporting questions that align with Freire's problem-posing and critical pedagogy.

The theme *Anthropocene* was unsurprisingly not common throughout the social studies standards as it places a direct correlation on humans for altering the climate. A few states made clear the relationship between human behavior and its impact on the changing climate. As seen before, some states come close to explicitly incorporating the environment such as SS-Geo.9-12.23. "Analyze the consequences of human-made and natural catastrophes on global trade, politics, and human migration" (Iowa Department of Education, 2017, p.42). The environment could be added to the list of catastrophes mentioned and it would show educators and students the importance of understanding the impact on the environment, however it is absent. This omission shows what is deemed essential or not.

Another standard identified was "The ER theme encourages the study of Earth's physical

systems (e.g., climate, landform, vegetation) and how human activities modify the environment, bringing both benefits and costs. The distribution of natural resources varies spatially and temporally, resulting in different political and economic relationships" (South Carolina Department of Education, 2019, p. 84). This geography standard states that humans modify the environment in both positive and negative ways and the allocation of resources impacts larger societal relationships. This standard could be more direct in the word choice or offer examples of how students and teachers could see the impacts on the environment. This standard also identifies the environment as something that was changed at the hands of humans but does not offer ways in which the environment has shaped human activity. The environment has not been centered in this standard; humans are still the essence of importance. Most standards do not go far enough to incorporate the injustices on the environment or take an ecocentric view of rights that Dobson (2003) and Cao (2015) advocate for.

Mississippi has an advanced world geography course in the standards that most clearly mentions the *Anthropocene* several times. One standard states "Explain how processes carried out by humans threaten environmental sustainability" (Mississippi Department of Education, 2018, p. 92). While this course shows one of the clearest connections to ecopedagogy, it is an elective and therefore, not all students will be required to learn these standards. This shows that the concepts related to the environment can be found in social studies standards but are more prominent in advanced classes rather than within the required social studies courses.

Related to the *Anthropocene* is the theme of *climate change*. This term was not stated directly in any of the twelve states analyzed. The Midwest didn't have any standards that fit the criteria and most regions only had one standard matching the definition. New Hampshire explicitly used the term *global warming* in the standards, which was uncommon throughout most

states. Standard SS:CV:12:3.1 states "Discuss the impact on world affairs and the United States'

response to environmental, economic, and technological issues, e.g., intellectual property rights

or global warming" (New Hampshire Department of Education, 2006, p. 79). Often the

environment or ecopedagogical themes were given as examples or in benchmarks rather than

directly in the standards such as this. The phrases "environmental changes and modifications"

along with "global climate concerns" were used in standards to depict climate change. The

concept of *climate change* has been a buzzword for climate activists and politicians over the

years. Perhaps the weighed history of the term in the U.S. contributes to other terms being used

in its place.

The theme of *sustainability* was uncommon in the Midwest and West. The Northeast only

had a few standards that met this theme, which may be that the states in these regions have

moved away from using the term and concept or that the areas have adopted different

environmental concepts related to *sustainability*. The South proved to be the region with the

clearest connection to *sustainability*. Additionally, almost all instances of *sustainability* were

found in geography courses. One standard is as follows "This indicator also promotes inquiry

into how the development of alternative energy sources impact places of production and

consumption over time." (South Carolina Department of Education, 2019, p. 90). While this

recognizes the current path of overconsumption and environmental exploitation that cannot

continue for future generations, the standards provided little emphasis on the urgency to change

current lifestyles and systems.

Hegemony was found throughout all the states but concentrated most heavily in the

regions of the Northeast and South. The use of the phrase "so-called 'Columbian Exchange'" in

the following standard gets to the heart of questioning previously accepted neutral terms. It

demands students look at the multiple effects of European colonialism. The full standard is as follows, "Identify the major economic, political, demographic, and social effects of the European colonial period in the Americas and the Caribbean Islands, the so-called 'Columbian Exchange'" (Massachusetts Department of Elementary and Secondary Education, 2018, p. 146). Another standard that points out the global systemic inequities and was coded under the theme of *hegemony* was "How did the social structures imposed through colonial control affect land use? (Connecticut State Department of Education, 2015, p.122). This standard asks students to question the systems in place that have and continue to shape our world, which is a critical step on the road to understanding the reality of inequities and to an increased consciousness.

Capitalism was the most common theme identified in total and had the highest documentation in Connecticut. This offers insight that economic systems are being discussed and, in some cases, critiqued for the broader implications. However, the vast majority of standards that included capitalism, discussed neoliberal ideas such as "measures of development", "measuring the health of an economy", "productivity", "industrialization", and "material standards of living". These reoccurring phrases point to the overarching emphasis on consumerism and free trade that dominates our world and earth. This perpetuates the idea that success is seen through development and modernization. There were multiple areas where standards could have been expanded to incorporate the environment such as standard E.5.1 "Describe how pursuit of self-interest in competitive markets usually leads to choices and behavior that also promote the national level of well-being." (Mississippi Department of Education, 2018, P. 85). This economic standard leaves out the expense of pursuing self-interest and could be expanded upon to include the exploitation and inequities that ensue at the hands of

this self-interest. It was common to see the positive side of capitalism throughout the state standards while the unequal repercussions were often missing.

One of the areas where the rhetoric of the superiority of humans over the rest of the environment comes from is in the control of factors of production and insatiable economic development. This narrative is most common in economic standards where the natural tendency is to teach about the current world economic system, capitalism. This leaves little room to explore alternatives to capitalism or the ways development and modernization are unquestionably measured as progress and something to strive for. The negative aspects of capitalism are downplayed or left out altogether in many economic standards throughout all four regions. When students are taught that the environment is something to be controlled, owned, or extracted for profit, it is contradictory to ask citizens to care for a place and find a sense of belonging in it as Orr (2009) calls for.

To review the findings and trends, *Anthropocene* occurred most often in Mississippi and in geography courses. *Planetary citizenship* was most closely tied with New Hampshire and the classes of civics/government and history. No state showed a significant incorporation of *climate change,* but the region of the Northeast included this theme most often. History courses is where *climate change* could be seen most. *Environmental literacy* occurred most often in New Hampshire and in geography courses. *Hegemony* occurred in Georgia and throughout history courses. *Sustainability* was most associated with the region of the South and geography courses. *Capitalism* occurred most frequently in Connecticut and history courses. Lastly, *critical pedagogy* was found to be most prominent in Connecticut and history courses. Five out of the eight themes occurred most evidently in the Northeast region and in history classes. Three out of

the eight themes occurred most in the South and in geography courses. This is interesting to note that civics courses did not lead in incorporating themes of ecopedagogy.

The state with the highest prevalence of the ecopedagogical themes was found in New Hampshire. New Hampshire included at least one standard from each of the eight themes analyzed, which was the only state to do so. This state offered overarching themes and questions to encourage critical thinking and larger philosophical questions related to social studies. This is of note, as the standards are from 2006 and therefore are one of the older documents of those analyzed in this study. The Northeast region offered the greatest connection to ecopedagogies, but this shows there is a disconnect between states and regions as to how the environment should fit into social studies standards. If there is to be a change in how Americans are taught to see themselves with the rest of the planet, there needs to be a greater emphasis in all states and a unified vision of what citizenship looks like on the planet.

Overall, the prevalence of the themes related to ecopedagogy was higher than expected but still underwhelming. Some standards could have incorporated ecopedagogical themes more explicitly but there was large variation between the states. This provides evidence that social studies standards can be improved upon, especially in economics and history course subjects where exploitation of natural resources is often left unquestioned. There could be more explicit connections between exploiting the environment and the violation of rights for both people and the environment.

The standards show it is essential for students to learn about how humans use the environment but the questioning or critiquing of past events and current issues is not as evident throughout the social studies standards. Overarching questioning of world systems was not commonplace, although taking civic action on a smaller scale was present in some standards.

The data collected from this study gave insight into the construction of citizens and the role people have in being part of the global capitalist economy. There was no strong data to support any obligation placed on citizens to disassociate with capitalism or the systems of oppression that have created a threatened environment. No strong evidence occurred to make a strong relationship between social and environmental problems.

The way that social studies standards are currently taught in the U.S. does not incorporate the environment to the extent needed to create planetary citizens and it does not give room for students to question or change the current system. There is a need for new systems to protect our environment. Indigenous epistemologies offer insight that could provide a new way to understand the interaction between citizenship and the environment. The heart of the problem of understanding inequities needs to be addressed, which can be done through education, as education is responsible for shaping citizens and inculcating the norms, beliefs, and values of a society. To foster the development and education of planetary citizens, social studies standards must be revisited and rewritten to place humans as part of the environment.

To return to the research question of this study, the prevalence of ecopedagogies in the construction of citizenship was underwhelming. This study noted multiple areas where the standards emphasized national forms of citizenship over environmental or planetary citizenship constructions as Myers (2006) has articulated. Some standards that sought to teach students about the environment but lacked the language of seeking alternative ways of being part of the greater earth systems. The goal of citizenship construction is still bound within the nation and in some cases may extend to the globe but does not encompass the planet. The inclusion of humans as part of rather than above the rest of the earth is absent from the social studies standards.

There are clear attempts to incorporate environmental concepts in the standards and it should be noted that there has been progress in how the U.S. thinks about the environment since the publishing of *Silent Spring*. The challenge is to make lasting changes to how humans interact and see themselves as part of the environment. This study does not find it hopeful that Americans are developing into citizens who are environmentally conscious or see themselves as citizens of the planet. However, youth today are taking action to demand environmental policy changes. Education should be a leader in this effort as the institution tasked with creating future citizens.

While an analysis of ecopedagogical themes in the standards offers valuable information, one area that will continue to perpetuate the graduation of consumer citizens (Doherty, 2007; Norris, 2020) is the structure of schools. Unless schools can break from the oppressive systems that silence epistemologies and advance versions of liberal ideations of citizenship (Cao, 2015), there seems to be little hope for ever achieving an ecocentric education and citizenship. What we value as a society is reflected in our schools. What we want students to know, and not know, how citizens should behave, and how to succeed in this economic system are all noted in our standards. The nuances within the word choice and depth of standards inform educators and in turn students on how to be an American citizen in the world today.

The findings support previous research on the place of the environment in social studies education. The findings met my expectations that ecopedagogical concepts are not commonly included in social studies standards and in the construction of citizenship. The findings provide valuable data on the which ecopedagogical concepts are most embraced and in which states and courses. From this research, it is evident that principles of ecopedagogy must be centered in social studies education if progress is to be made in moving away from U.S. exceptionalism and

capitalism which continue to forge a path of environmental exploitation and inequities around the world.

Recommendations for Further Research

One area of further research is to examine the presence of ecopedagogies in social studies standards is in state specific courses. States often have an individual state studies course where students learn about the specific history and geography of their state. This course has the potential to establish a strong sense of place and connection to the environment. I did not include state study courses in my analysis as it is often taught at the middle school level or as an elective. However, this course may be best organized to teach the key concepts of ecopedagogy, starting with developing a connection and understanding of a local place.

It is beyond the scope of this study to address the question of ecopedagogy in practice. Another recommendation for further research is to collect data from the classroom to determine what ecopedagogy looks like in practice. While the standards can offer insight into what states find valuable and necessary to teach youth, ecopedagogy relies on putting ideas into practice. An analysis of how teachers use the standards is needed to gather more conclusive evidence into how ecopedagogies are taught in relation to citizenship construction. Of note, this study does not look at how the standards are presented in textbooks, instructional materials, and curriculum guides. Future research could examine other curricular materials that assist teachers in covering the standards.

Conclusions

Constructing citizens is an essential role of social studies education. Placing humans on equal footing with the rest of the environment is not incorporated to the extent that it needs to be to create planetary citizens throughout U.S. high school social studies standards. The standards

can and should be improved upon to include a more ecopedagogical lens. The key tenants of ecopedagogy are not emphasized or in some cases even taught in the U.S social studies standards. If students gain these skills and perspectives as citizens, it could create an education system that will meet the most significant challenges of today. Implementing ecopedagogy in schools would create entire generations of citizens who see themselves as part of the earth, not above it. The implications of this lack of ecopedagogical themes in the standards show the perpetuation of a capitalist society that pits humans against the environment and teaches control and domination over cooperation.

There are large variations between states as to what is included in the standards and in what way. This lack of national unity in standards shows the importance of individual states in constructing citizens and in articulating the human-environmental connection. The emphasis and importance of social studies concepts differ by state. This shows the disconnect between local-level goals of citizenship to regional, national, international, and planetary citizenship goals. The implications of this are that citizens will not develop a connection or affinity outside of what they see themselves a part of.

This study provided the basis for understanding the prevalence of ecopedagogies in the construction of citizenship in U.S. high school social studies standards. While each state analyzed in this study touches on ecopedagogical themes in the standards, there is room for a greater degree of related concepts throughout the states. Ecopedagogy will not become a practice in social studies classrooms unless someone is raising their consciousness of the oppressive forces perpetuating inequalities and environmental exploitation and working to improve the system. The first step is to understand what it is students are expected to know through the

standards, with that information in tow, action can be taken to improve what the standards

emphasize and how humans see themselves as planetary citizens.

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VITA

Rainey was born and raised in Cedar Rapids, Iowa. Before attending Loyola University Chicago, she attended the College of St. Benedict where she earned a Bachelor of Arts in Social Sciences. Currently, Rainey is a middle and high school Social Studies teacher in Minnesota.