

May 2016

Is Being Green, White? A Critical Ethnographic Study of Social Norms in Conservation

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<http://dx.doi.org/10.34917/9112211>

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IS BEING GREEN, WHITE? A CRITICAL ETHNOGRAPHIC STUDY
OF SOCIAL NORMS IN CONSERVATION

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A dissertation submitted in partial fulfillment
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Doctor of Philosophy - Curriculum & Instruction

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May 2016

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Dissertation Approval

The Graduate College
The University of Nevada, Las Vegas

April 6, 2016

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Is Being Green, White? A Critical Ethnographic Study of Social Norms In Conservation

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ABSTRACT

Attempts to measure and implement conservation norms have consistently upheld and promoted the dominant culture's practices and beliefs. This has led to oppression of non-dominant populations, thereby hindering these populations' access to various opportunities to participate in conservation based activities. This has historically, and still today, led to the segregation of non-dominant populations from environmental participation and has misrepresented their beliefs and actions relative to definitions of conservation citizenship and in the broader literature on conservation, conservation measurements, outdoor recreation, and pro-environmental behavior. This research sought to extend the existing literature on conservation, specifically on the measurements of recreation practices and pro-environmental behavior, by surfacing and documenting how non-dominant groups' have historically engaged and currently engage in conservation, broadly considered. Critical ethnography provided the theoretical framework through which past research practices on conservation were examined relative to sociopolitical influences on the social construction and perpetuation of conservation norms. Using a convergent mixed methods research design, both qualitative data (observation and interview) and quantitative data (survey) was collected and analyzed individually, then the findings were compared and interpreted. This research challenges the 'one-size fits all' mentality embedded in conservation history and measurement.

ACKNOWLEDGEMENTS

El verde es el color principal del mundo y, que a partir del cual surge su belleza.

Green is the prime color of the world, and that from which its loveliness arise.

Pedro Calderón de la Barca

Upon the completion of my undergraduate degree, I had believed that my pursuit of education was behind me. Little did I know that I would soon be joining an organization that would initiate my pursuit for outdoor equality. SPLORE, an organization providing outdoor recreation and education to individuals with disabilities, opened my eyes and showed me that the outdoors is not only a place for the able bodied, but can, and should be, accessible for everyone.

This journey has been filled with emotions, challenges, and encouragement. I am thankful to those who listened to my trials, especially those who provided those necessary pep-talks when I thought this process would never end. I am the most grateful for my family. Each person who I love played an integral role in getting me to the finish line, whether it was allowing me talk through my ideas or listening when I called to cry and complain; I would not be who I am today if I had not been given the steadfast love, guidance and support from each of you.

Thank you to the members of my dissertation committee: Dr. Christine Clark, Dr. David Vallett, Dr. Howard Gordon, and Dr. Robert Futrell for your continued encouragement and commitment to my ideas, vision, and endless questions. Together you allowed me to explore a topic that is personally and professionally meaningful to me. I am thankful for the collaboration with my co-chairs Dr. Christine Clark and Dr. David Vallett who each played such an important role in my continued progression and in my ultimately making it to the finish line.

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CHAPTER 1: INTRODUCTION

This study examined the sociopolitical norms of conservation, which has contributed to the on-going segregation and oppression of historically non-dominant or underrepresented populations in the United States. This chapter will provide an overview of the problem, establishing the need for this study, and provide the reader with the overall structure of this study. This overview will establish the rationale for the study and will situate this work within the existing body of conservation-related research. Specifically, this chapter will outline the study's general statement of the problem, background of the problem, rationale for the study, the research question(s), the theoretical framework and methodological rationale, and the significance of the study. The chapter will conclude with the operational definitions that will be used throughout this study.

General Statement of the Problem

Environmental researchers, educators, and activists have sought to develop measurements, curriculum, and practices that successfully teach, incorporate, or promote conservation behaviors and attitudes (Bamberg & Möser, 2007; Hines, Hungerford, & Tomera, 1987; Kollmuss & Agyeman, 2002; Pui-Ming Yeung, 2002). As a result, variables, attributes, and influences of conservation have all been labeled, grouped, and weighed with the ultimate goal of finding what factors promote pro-environmental behavior. To date, research has not been successful in pinpointing what exactly promotes, develops, or encourages pro-environmental behavior (Bamberg & Möser, 2007; Hines et al., 1987; Kahn, 2008; Kollmuss & Agyeman, 2002). Throughout this search for such determinants, researchers have overlooked the manifestation of power relationships and how these relationships operate in society to systematically privilege some and disadvantage others on the basis of varied dominant and non-

dominant identities, namely, sociopolitical influences (Brown, 2004; Nieto & Bode, 2008; Shinew, Floyd, & Parry, 2004). Dismissing or failing to acknowledge sociopolitical influence can be likened to a one-size-fits-all mentality, meaning that everyone should be measured and evaluated with the same criteria (Hershey & Hill, 1977; Illich & Verne, 1976; Jickling, 2005; Yearley, 2005).

Not only have previous research practices ignored sociopolitical influences when evaluating or measuring conservation, they have also ignored how these research norms perpetuate the beliefs and practices of the dominant culture (Barton & Yang, 2000; Jones, 2002; Kahn, 2008; Nieto, 2013; Rajecki, 1982). When organizing and grouping variables to explain the development and measurement of conservation, such as outdoor recreation or pro-environmental behavior, there has been insufficient attention given to how current practices are exclusionary with regard to populations that are not members of the dominant culture (Barton, 2001; Finney, 2014; González-Gaudiano, 2005; Jones, 2002; Taylor, 2014a; Yearley, 2005). As a result of these exclusionary practices, a societal shift must occur to acknowledge the conservation-related gap between dominant and non-dominant populations, as well as analyze how this gap is detrimental, for and to society and the environment.

Background of the Problem

Conservation beliefs and practices have been molded and depicted by members of the dominant population since the beginning of the conservation movement (Finney, 2014; Gibson-Wood & Wakefield, 2013; Stapp, 1969; Yearley, 2005). The dominant culture has laid out an assimilation model for conservation-based behaviors, beliefs, and actions (Barton & Yang, 2000; Banks, 2001; Best & Nocella, 2006; Diekmann & Franzen, 1999; Kahn, 2008; Rajecki, 1982). Members of the dominant culture include those who develop, represent, and influence societal

norms and beliefs that are widely acknowledged as the standard; this same group promotes and advances sociopolitical influence and power in communities, regions, states, and throughout the U.S. (González-Gaudiano, 2005; Mathews, 2000; Yearley, 2005). As a result, an assumption of a single narrative to define conservation has persevered through history, been utilized as the de facto measurement standard in behavioral models and surveys, and has been practiced and implemented through societal norms (e.g., recreating in the outdoors) (Banks, 2001; Gibson-Wood & Wakefield, 2013; Rajecki, 1982; Taylor, 2000; 2002; 2014a; Taylor, Grandjean, & Gramann, 2011; The Outdoor Foundation, 2013; 2014).

These norms, however, are long overdue for challenge and critique (Jickling, 2005; Kahn, 2008). Because of their nonconformance with these historically developed norms of conservation, populations and communities that are not members of the dominant populations have often had their conservation beliefs and practices eradicated, or have had their participation, understanding, and actions misrepresented or segregated from conservation norms (Banks, 2001; Barton, 2001; Baugh, 1991; Burgess, Harrison, & Filius, 1998; Engstrom, 1970; Finney, 2014; Jones, 2002). Eradication and exclusion emerge from sociopolitical influences such as laws, regulations, policies, practices, traditions, and ideologies (Bullard, 1993; 1996). Sociopolitical influences in conservation norms are manifested through negative stereotyping, discrimination, institutional and environmental racism; these, in turn, continue the patterns of oppression and segregation between dominant and non-dominant populations and communities by denying current and future populations opportunities to voice concerns and/or participate in dialogues about conservation (Baugh, 1991; Bullard, 1993; 1996; Burns, Covelli, & Graefe, 2008; Ceaser, 2015; Floyd, 2007; Holifield, 2001; Jones, 2002; Pulido, 1996; 2000; Savage, 1993; Taylor, 2014a; 2014b).

Rationale for the Study

As a multicultural educator, with an on emphasis informal and environmental education, I found that no matter the agency, school, or non-governmental organization (NGO), there was a stubborn belief that knowledge will make people care more about the environment. Therefore, environmental education was utilized as the ‘best practice’ for promoting conservation beliefs and behaviors among youth, adults, students, participants, and/or visitors. Environmental education (EE) is defined by the U.S. Environmental Protection Agency (EPA) as:

A process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions (2016, para 1).

When viewed through a multicultural lens, I realized there was a disconnect between what EE should be, and how it was being manifested in my programs as well as by other EE educators. Not only did I question my own programs, but I also became aware of assumptions and norms, situated in EE, that excluded some topics and populations from the dialogue or from participation all together. I realized that the standard approach for most programs or lesson plans provided information only, epitomizing the banking concept of education (Freire, 1970). The banking concept posits that as the educator, my ideas and my experiences are deposited into my learners, through a one-sided transaction, usually reflecting my personal experience or the beliefs and policies of the agency for which I was working. The learner’s experiences or beliefs did not influence how the program was going to be taught, nor did it matter that their opinions differed from what the program was scripted to present. This then led to reflecting on whose voices were being excluded from the conversation about EE and conservation as a whole, what have been the

templates for these patterns and, lastly, where did these patterns originate. Though this process of exploration and questioning, this study emerged.

This study was constructed to provide a greater understanding of conservation norms in society, which play an important role in the future development of both curriculum and instruction. This study approaches teaching and learning through both formal and informal education, combining science, multicultural, and environmental education, and utilizes both didactic and experimental learning.

Research Questions

The history associated with conservation in the U.S. has painted an enticing picture of the necessity of environmental conservation for the creation of a better and more just society. Utilizing themes such as freedom, exploration, liberation, participation, activism, and unity, the conservation movement has exhorted all citizens to become actively involved in the pursuit of a society that cares about and engages in environmental conservation practices. However, this ideology has not come fully to fruition. Influenced by the dominant culture's norms, and structured through sociopolitical influences (e.g., laws), conservation has embodied activities, ideals, and practices that are upheld and continued by members of that same dominant culture. To gain further insight into this societal transition and the effects on current populations, the research questions for this study are: What are the effects of conservation norms on non-dominant populations? and, How might sociopolitical influences limit the development of conservation citizenship?

Theoretical Framework

From the stance of a multicultural educator, this study examined the norms of conservation beliefs and practices. Through this examination, privilege, power, and segregation

were found to be heavily embedded in both the origins of conservation ideology, as well as in how it is manifested and practiced in today's communities. In order to gain a better understanding of these various influences and perspectives, the researcher needed to gain a better understanding of the community, the participants, and their own experiences. Therefore, a critical ethnographic framework was adopted; this approach seeks to elicit, identify, and reveal deficit beliefs and highlight the oppressive practices that have discouraged significant segments of the population from having a voice in the future of conservation.

Methodological Rationale

This research needed what Greene (2008) calls a “mixed methods way of thinking... [that] offers deep and potentially inspirational and catalytic opportunities to meaningfully engage with the differences that matter in today's troubled world, seeking not so much convergence and consensus as opportunities for respectful listening and understanding” (p. 20). Mixed methods acknowledges the sociopolitical influences that are embedded in methodologies, and is aware of those that will benefit from the inquiry by taking into account audience, perspective, voice, and advocacy in social practices of inquiry (Greene, 2008).

Data was collected using a convergent parallel design (Creswell & Clark, 2011) which allowed the qualitative and quantitative data to be collected separately, and then jointly considered to inform the findings. In this study, the quantitative data was collected through a non-experimental longitudinal survey (Tashakkori & Teddlie, 2003) and the qualitative data was collected from the audio recordings and observations of participants' participation during pre-fieldtrip meetings, on fieldtrips, and during post-fieldtrip meetings.

Environmental literacy, environmentally responsible behavior (ERB), responsible environmental behavior (REB), environmental justice, civic responsibility, community

stewardship, environmental racism, recreation, recycling, climate change—any or all of these terms might be used by those who advocate for conservation and preservation, while seeking to promote research, educate, and engage in this arena. In the spheres of learning and engagement there are ongoing efforts to develop models that can foster conservation beliefs and behaviors. For example, education and action-oriented conservation initiatives utilize themes such as survival, protection, and preparing for a better future, as ways to undertake this promotion. These generalizable themes are relevant to every person, race, community, and culture, thus they can also be utilized to promote camaraderie and unity.

Significance of the Study

The significance of this study is to invite diverse, as opposed to convergent, experiences and perspectives into the conversation of conservation. To date, little direct research exists on a) developing and/or measuring conservation while accounting for sociopolitical influences; b) on identifying the dominant culture as the basis for measurement and the corresponding limitations this culture places on non-dominant populations or communities; c) on sociopolitical influences that hinder the development of conservation citizenship; or d) that employs a mixed methods approach in the study of conservation. These gaps in research point to the need for a multicultural approach to conservation. Here, a multicultural approach is broadly meant as a fresh approach, an approach that welcomes additional perspectives in seeking to embody a larger perspective, an approach that includes both diversity of experience and voice, and an approach that seeks to break down barriers so that all people can contribute—through conservation—to society as whole.

Operational Definitions

Definitions for the terminology commonly used in connection with conservation, as they relate to this study, are as follows:

Civic Responsibility /Engagement: “Responsibility for the civic realm, responsibility not just to other people but for what we and others share—for the goods we have in common, for the quality of our life together, for the creation of a just social order” (Mathews, 2000, p. 150).

Conservation Citizenship: A process that allows individuals to explore environmental issues (both community and public problems), engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions, for this and future generations (Burgess et al., 1998; Dobson, 2007; Dobson & Bell, 2006; U.S. EPA, 2016). The use of the word “citizenship” herein is very particular—to focus attention on the qualities or characteristics of citizenship, not to isolate or exclude populations (i.e., as only applicable to so-called documented citizens of the United States). This term is used additionally to encompass concepts of civic responsibility/engagement and environmental stewardship.

Conservation Norms: Acceptable and expected beliefs, practice, interactions, behaviors that both individuals and communities promote and expect in accordance with conservation. These norms are usually situated around the laws of the area, and are often passed on as traditions through families or communities. An example of a cultural norm for conservation might include going to a public trail with your dog. People who use this trail often are supported by the law that dogs must be on a leash; therefore, if someone does not have their dog on a leash, that person is shunned or demeaned by other trail users who are following the rule.

Culture: “The values, traditions, worldview, and social and political relationships created, shared, and transformed by a group of people bound together by a common history, geographic location, language, social class, religion, or other shared identity” (Nieto & Bode, 2008, p. 158).

Dominant: The dominant group(s) does not refer to numerical majority, but rather to social prestige and institutionalized privilege (Heath, 2004; NGSS Lead States, 2013; Nieto & Bode, 2008). The decision to utilize dominant and non-dominant terminology in this study is not intended to stereotype any particular population, group, or community (positivity or negatively), but rather to critically analyze concepts of privilege, access, and related influences on norms. An example of dominant population is demonstrated through South Africa’s White minority rule between 1948 to 1994. Through an apartheid legislation, White minority government used of laws to separate South Africa’s white minority from its non-white majority, but also to separate non-whites from each other, to further decrease the options of political power. Through the ability to enact laws, designations of land use were appropriated, granting more than 87 percent of the country’s land to White minority (Durning, 1990, p. 8; History.com, 2010).

Environmental Justice: “Environmental justice is the 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” (U.S. EPA, 2015, para. 1). The United States Environmental Protection Agency (EPA) articulates that achieving such justice for all communities and persons across this nation is one of its goals, and that this goal will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process regarding a healthy environment in which to live, learn, and work (U.S. EPA, 2015, para. 1).

Environmental Literacy: “An environmentally literate person is someone who, both individually and together with others, makes informed decisions concerning the environment; is willing to act on these decisions to improve the well-being of other individuals, societies, and the global environment, and participates in civic life. Those who are environmentally literate possess, to varying degrees: the knowledge and understanding of a wide range of environmental concepts, problems, and issues; a set of cognitive and affective dispositions; a set of cognitive skills and abilities; and the appropriate behavioral strategies to apply such knowledge and understanding in order to make sound and effective decisions in a range of environmental contexts” (Hollweg et al., 2011, p. 2-3 – 2-4).

Environmental Racism: “Environmental racism [has] focused on the spatial relationships between environmental hazards and community demographics in order to determine if inequality exists” (Pulido, 2000, p. 12). Additionally, environmental racism is racial discrimination in environmental policy-making, the enforcement of regulations and laws, the deliberate targeting of communities of color for toxic waste facilities, the official sanctioning of the presence of life threatening poisons and pollutants in communities of color, and the history of excluding people of color from leadership in environmental movements (Chavis, 1994, p. xii, as cited in Cutter, 2012, p. 251).

Environmental Stewardship: Environmental stewardship describes the responsibility for environmental quality shared by all those whose actions affect the environment (U.S. EPA, 2005).

Multicultural Education: A multicultural approach to education acknowledges sociopolitical influences (unequal power relations) in education, and seeks to address them through the

affirmation of student diversity, broadly and complexly considered (Nieto & Bode, 2008; Sleeter, 2001).

Multicultural Conservation: Multicultural conservation encourages citizens to self-reflect and examine their beliefs and practices relative to their roles within their home, school, and community (Scott & Gough, 2003). Rather than only developing a sense of self-awareness that has direct impact on self, multicultural conservation encourages understanding of the larger world—connectivity between and across peoples’ attitudes, senses of place, experiences of power structures and systems, and agency (self-efficacy to make change)—in seeking to drive curiosity towards critical consciousness—what Freire (1970) calls the process of conscientization.

Non-dominant: For the purpose of this study, non-dominant will be delineated in two ways. The first way is to identify a specific group, population, or culture that has historically been and/or is now intentionally separated or segregated from the dominant culture. The second way is to generally describe members of the following groups: the economically disadvantaged—working class, low income, working poor; minorities from historically underrepresented racial and ethnic communities; individuals with disabilities; people who speak English with limited proficiency, among other key communal associations or experiences which have led them to be excluded by intentional action on the part of members of the dominant culture through overt and covert, as well as seemingly benign or intentionally violent, promotion of dominant group norms.

Responsible Environmental Behavior (REB): Actions that: reveal understanding of environmental issues, knowledge, consciousness, and responsibility; convey active citizenship; promote specific personal habits; and attest to how far a person is prepared to go to protect the

environment (Cottrell, 2003; Hungerford & Volk, 1990; McKenzie-Mohr, Nemiroff, Beers, & Desmarais, 1995; Pui-Ming Yeung, 2002).

Sociopolitical: The sociopolitical context of society includes laws, regulations, policies, practices, traditions, and ideologies; generally sociopolitics refer to the manifestation of power relationships and how they operate in society to systematically privilege some and disadvantage others on the basis of varied dominant and non-dominant identities, respectively (Brown, 2006; Nieto & Bode, 2008).

Summary

This chapter provided an overview of the study. In this overview the background and rational for this study was provided, additionally providing the research questions and methodological rational for how this study was conducted. Finally, this chapter provided operational definitions to explain how specific terms are being employed in this research. Chapter two will provide a review of the research literature, primarily in the areas of conservation. This literature review will highlight research that supports the need for this study—both the research on which this study will build, and the gaps in the research which this study seeks to address by answering the stated research questions.

CHAPTER 2: LITERATURE REVIEW

The purpose of this study was to examine the effects of conservation norms on non-dominant populations, as well as to identify sociopolitical influences that potentially limit the development of conservation citizenship. Chapter one provided a synopsis of the study. The research questions were identified relative to current oppressive practices in conservation norms to make the case for the significance of the study. This chapter will review research findings in the field of conservation, and highlight, where relevant to the study, gaps in these findings that the study will seek to fill.

Nature of the Study

This research study surveyed and observed students from a local community college in the Southwestern United States. These students were offered the option, on their own time, to participate in fieldtrips that would visit National and State Parks, as well as Conservation Areas. Professor Grey¹ (pseudonym) is an outdoor enthusiast and wanted to allow his students a safe opportunity to learn about and explore the outdoors. Because he knows that some of his students have never gone beyond the city limits, this would be their first opportunity to experience hiking or camping.

While this study was developed by a multicultural educator, and is situated around the topic of science education, this is not, per se, an educational study. This study focuses on the conservation norms association with conservation beliefs, actions, and practices. Through a convergent mixed methods data collection process, participants are surveyed and observed in relation to their beliefs and interactions with nature, conservation, and the related social norms. In order to accomplish this, the study drew from two previous studies, one of which utilized

¹ All names of people and places are pseudonyms.

surveys to measure participants' REB (Hsu, 2004), and the second, which utilizes a method called a "go-along" to observe participants' authentic interaction with nature (Kusenbach, 2003).

Purpose of the Study

The purpose of this study was to examine the relationships between conservation, on the one hand, and power, privilege, and access in our society, on the other. Power, privilege, and access are synonymous with the dominant culture's norms; not surprisingly, this means that the norms of conservation mimic and reinforce the practices and beliefs of those who set the precedents for practicing conservation. These norms were developed and continued as traditions, which later evolved into laws that have been passed on to future generation. Conservation began as a movement to improve the connection between members of society and the environment in order to protect it, and to promote behaviors that would preserve such resources for future use. This ideal was all-encompassing, and applicable to all members of society, if willing; however, this ideal has been exploited by rules, regulations, laws, and practices that resulted in barriers and limitations that demean and exclude non-dominant communities and populations (Jones, 2002; Shinew et al., 2004; Washburne, 1978). The following section will provide a brief history of the conservation movement in the United States and how conservation ideals have transformed from a theme of unity to practices upholding laws and perpetuating the dominant culture's norms.

Conservation History

Conservation is not a new fad, nor is it a new topic of conversation. Conservation initiatives, practices, and beliefs have been a longstanding theme throughout the history of the United States. Conservation was utilized as the foundation of this study, as conservation is centered on societies behaviors, choices, and actions (Kruse & Card, 2004; Schultz, 2011). The selection of conservation rather than sustainability, is due to confusion of meaning, as wells as

the association between sustainable development and economic interest (Jickling, 2005).

Although these terms have been used interchangeably, for this study the focus will be between people and the environment.

Conservation topics have continuously focused on developing citizenship—meaning the duty to live sustainably so that others may live well—by solving community and public environmental problems (Burgess et al., 1998; Dobson, 2007; Dobson & Bell, 2006). The foundation of republican citizenship places an emphasis on the need for community, rather than on the individual (Cao, 2015). In this view of “civic virtue... ‘people must be prepared to overcome their personal inclinations and set aside their private interest when necessary to do what is best for the public as a whole’” (Dagger, 2002, cited in Cao, 2015, p. 42). In the republican citizenship theory, the most important contribution of a citizen is to maintain their community (Cao, 2015).

Citizenship and community form the foundation for the development of conservation. Conservation has taken on many labels, shapes, messages, and movements, ranging from a romantic wanderlust to the enactment of laws and regulations that mandate adherence. Throughout the nation’s history, a vision that has ostensibly sought to unite citizens and protect resources for the future has unfortunately also been a catalyst for segregation and oppression. The following overview of the history of conservation efforts in the United States provides context for the role of sociopolitical influences in shaping current conservation practices and beliefs. An unfortunate result has been that non-dominant populations, which may not fully embody the norms of conservation practices, have been negatively stereotyped and had their voices and their perspectives stifled or ignored regarding the preservation of natural resources for the future.

Culturally-based conservation and sustainable beliefs were practiced by Native Americans far before European colonization (Matthews, Higley, Hilty, & Wang, 2008). However, it was not until 1626, when the Plymouth Colony passed ordinances placing regulations on the cutting and sale of timber (Nash, 1990). This was followed by elaborate conservation efforts focused on exploration of land, and the protection of wildlife and resources. In the late 18th century, Romanticism brought together the desires for poetry and for pure landscapes, with the introduction of ecology (Huggan, 2009; Pepper, 1985). Henry David Thoreau's (1817-1862) advocacy, typified by statements such as "Heaven is under our feet as well as over our head" (1854, p. 275) in his famous book, *Walden*, was just one of the many significant contributions made toward developing our nation's consciousness of the larger world around us. Other heroes of the conservation movement included John Wesley Powell (1834-1902), who was the first man to complete the exploration of the Colorado River in 1869; John Muir (1838-1914) known for exploration and preservation efforts in the west and who was considered the father of National Parks; and Aldo Leopold (1887-1948), known as the father of conservation. They were all dedicated to the conservation, preservation, and protection of all natural resources (Nash, 1990; Wild, 1979). Their work inspired the nation regarding the beauty and serenity they discovered, while they personally pursued a conservation-based lifestyle that was a model for others to follow. Their work also educated the public about the need to protect the beauty and natural resources, raising environmental protection to the level of a national concern.

Federal involvement fostered the next phase of the conservation movement, with legislation designating large areas of wilderness as national parks: Yellowstone National Park was announced in 1872, followed by Yosemite National Park in 1890. Later, the National Park

Service became an organized entity in 1916 (National Park Service, 2015). Concurrently, environmental organizations emerged such as the Sierra Club in 1892 (Sierra Club, 2014), followed by the Wildlife Conservation Society in 1895 (Wildlife Conservation Society, 2015). The early 1900's saw the implementation of several major projects that kept national focus on conservation. The construction of the Boulder Canyon Project (Hoover Dam) to control the Colorado River initiated conversation around water allocations; while the establishment of the Civilian Conservation Corp to provide jobs and use that work to preserve public lands, continued the government's role in ecology (Nash, 1990). Further efforts to bolster federal involvement in the conservation movement resulted in the creation of the U.S. Fish and Wildlife Service in 1940 and the U.S. Bureau of Land Management in 1946. Additionally, more federal regulations were introduced such as the Federal Water Pollution Act in 1948, the Air Pollution Control Act in 1955, The Wilderness Act in 1964, and the Wild and Scenic Rivers Act in 1968 (Nash, 1990). After the 1969 Santa Barbara, California oil spill, Senator Nelson (Wisconsin) attempted to capitalize on the timing and energy of the student anti-war movement to promote public consciousness about air and water pollution. The goal was to push environmental protection onto the national political agenda. These efforts resulted in the designation of Earth Day in 1970, and further to the creation of the United States Environmental Protection Agency and the National Environmental Policy Act. The Clean Air, Clean Water, and Endangered Species Acts in 1972 followed soon after (Earth Day, 2015).

Based on these developmental milestones in the United States conservation movement, it appears that, in the beginning, the underlying theme and desired outcome of conservation was the development of citizenship and society. However, this idealism then shifted focus to abiding by rules and regulations set forth in federal policy and legislation. These regulations have

molded desirable behaviors and beliefs, otherwise known as norms, regarding what it means to be a conservationist. Given the timeframe of these events, the national leaders who set forth the ideals of what conservation should mean to the nation were predominantly White middle- or upper-class males (Best & Nocella, 2006; Gibson-Wood & Wakefield, 2013). This has largely resulted in a single narrative of conservation—the dominant population’s perspective.

Measuring Conservation

Once laws and policies were enacted, power and privilege soon began molding social norms of conservation practices. The next section of this literature review examines studies of outdoor recreation use and pro-environmental behavior to establish past and present contexts for the development of norms, as well as the impacts of those norms on non-dominant populations. Specifically, this review will show patterns of the dominant culture’s influence and reveal gaps in the research that failed to account for members of the non-dominant cultures (Brown, 2004; Jones, 2002; Jones & Rainey, 2006). In the following section, terminology from the study’s being cited will be utilized as part of the reporting of the literature. Meaning, language associated with populations ethnicity were labeled and grouped by the researchers, therefore will reported as such. While this study focuses on the terms dominant versus non-dominant, defined by the influence of power and prestige, the following literature review will specifically highlight research on and between different populations associated with outdoor recreation usage and pro-environmental behavior.

Outdoor Recreation Use

While the true measurement of conservation—whether it be practice, belief, or behavior—has evaded researchers, history has relied upon outdoor recreation use and patterns as a proxy for ones connectivity with nature (Larson, Whiting, & Green, 2011). Bestowed to all

citizens, access to outdoor recreation is a right and a privilege (Washburne, 1978). A review of outdoor recreation research will provide some context for how norms in both conservation and recreation have been established and upheld, and will also provide some insight to how current research on outdoor recreation can be exclusionary for non-dominant populations. This review began searching keywords in journal articles such as: outdoor recreation, leisure studies, minority outdoor recreation, African American outdoor, and Latinos recreations. While the usage of these terms afforded me access to some research in and around this subject area, it was not until, reading through those publications and reviewing their references allowed me to gain better access to the previous research on this topic.

Beginning in 1958, The Outdoor Recreation Resources Review Commission (ORRRC) was created to answer the following questions:

- What are the recreation wants and needs of the American people now and what will they be in the years 1976 and 2000?
- What are the recreation resources of the Nation available to fill those needs?
- What policies and programs should be recommended to insure that the needs of the present and future are adequately met? (ORRRC, 1962, p. iii)

In 1962 these questions were partially answered in the National Recreation Survey (ORRRC, 1962). The survey's findings identified four styles of recreation participation, titled Activity Groupings by Cultural Context: a) Backwoods (e.g., camping, fishing, hunting, nature walks, etc.); b) Boat Culture, formerly known as Mobility Culture or Highway Culture (e.g., motorcycles, sports cars, boats, water skiing, speed, showmanship, elements of risk); c) Country Club to Picnic Ground Complex, summarizing public settings having traditions with widely distributed and agreed-upon standards of excellence (e.g., sailing, swimming, bicycling, outdoor

games or sports, picnicking); and, lastly, d) Passive Pursuits which included driving or walking for pleasure, sightseeing, or attending an outdoor concert (ORRRC, 1962). These practices and activities largely represent White upper-class beliefs and traditions of recreation in 1962. Furthermore, these findings laid the groundwork for and molded the expectations of what future recreation should look like in the year 2000.

This study set a precedent of exclusionary practices associated with outdoor recreation assumptions and research, stating that Whites were more likely than Non-Whites to participate in a wide range of outdoor activities, and that income and education were significant determinants of participation in these outdoor activities (ORRRC, 1962). Although the intent of the ORRRC was to examine the recreation wants and needs of the American people for the next 24 years, only the voices and ideas of the dominant population were accounted for. The study did offer an explanation regarding possible limitations of their findings, which stated, “culture may limit participation through norms for behavior which originate in religion, color, legal restrictions, male-female role prescriptions, and other traditions or customs which provide a behavior pattern” (ORRRC, 1962, p. 5). Additionally, the study reported that “Nonwhite persons were not analyzed due to the small sample sizes” (ORRRC, 1962, p. 81).

Following this study, additional studies of recreation practices and beliefs were published in 1965 and 1970, with similar results, stating that statistics on Blacks were too small to be significant, while reiterating that Whites were more likely than minorities to participate in outdoor recreation (Baugh, 1991; Taylor, 2014a). These studies’ findings provided an overview of the wants and needs for future outdoor recreation uses, and what policies, or sociopolitical influences, should be put into place to continue those desires into the future. As some of the first

recreation-based studies, these findings set a precedent for what outdoor recreation norms should be and made clear who was and was not participating in these activities.

Decades later, the same discrepancies were still being reported. In 2009, the National Park Service (NPS) found visitation differences by race/ethnic group appeared unchanged since the previous iteration of the NPS Comprehensive Survey in 2000 (Taylor et al., 2011).

Specifically, the National Park Service found that interviewees who could name a unit of the National Park System they had visited in the two years prior to the survey were disproportionately White and non-Hispanic (Taylor et al., 2011). Similarly, a 2011 study by the U.S. Fish and Wildlife Service reported that 87 percent of those who participated in fishing or hunting were White (U.S. Department of the Interior, 2014, p. 61). And, as recently as 2013, the numbers were still not representative of the population at large. Nearly 143 million Americans, or 49.2 percent of the U.S. population, participated in 12.1 billion outdoor outings (The Outdoor Foundation, 2014, p. 4). Outdoor outings accounted for 43 activities such as adventure racing, bicycling, bird watching, camping, fishing, hunting, kayaking, running, skiing, and wakeboarding. Of the 143 million participants, 70 percent were Caucasians, 11 percent were Black, eight percent were Hispanic, seven percent Asian/Pacific Islander, and four percent identified as “Other” (The Outdoor Foundation, 2014, p. 10). Additionally, 44 percent of the participants made more than \$75,000, and forty percent were either college graduates or post-graduates (The Outdoor Foundation, 2014, p. 10).

For more than 50 years, populations have been surveyed to see if they fit the criteria of outdoor recreation norms. The norms, as described in the findings of the 1962 National Recreation Survey closely mirror the 43 recreational activities found in the 2013 study (The Outdoor Foundation, 2014, p. 4). Additionally, the results on participant engagement in each of

these studies—spanning more than 50 years— have also changed very little, with consistent reports that White middle- to upper-class people are the majority of those participating in outdoor recreation activities (Floyd, 1999; ORRRC, 1962; Taylor, 2014a; Taylor et al., 2011; The Outdoor Foundation, 2013; 2014; U.S. Department of the Interior, 2014). The previous research on outdoor recreation, has utilized a one-size fits all methodology. For example, the 2013 report, conducted 19,240 online interviews from a nationwide sample of individuals and households, which was then used to project their findings as representative of the entire population of 290,001,000 (The Outdoor Foundation, 2014, p. 7). However, it was not reported whether or not the survey was distributed in multiple languages, or accounted for populations without internet access. Research that has asserted an all-inclusive picture of outdoor recreation has highlighted the divide between dominant and non-dominant populations.

These findings established and perpetuated, the stereotype of “under-participation” by non-dominant groups in outdoors recreation (Burns et al., 2008; Floyd, 1999), based solely on the fact that they were not participants in the surveys on these topics, or that they have not engaged according to these particular recreational norms (Baugh, 1991; Floyd, 1999; Hershey & Hill, 1977; Johnson, Bowker, English, & Worthen, 1997; Jones, 2002; Weber & Sultana, 2013). Floyd (1999) cites Woodward’s (1993) contention that “not only are the terms ‘under-participation’ or ‘under-representation’ inherently biased, but they can potentially misdirect research and management efforts away from understanding intra-racial and intra-ethnic recreation preferences and patterns of use” (p. 3). These large-scale studies and publications have not been inclusive of the non-dominant populations’ recreation-based norms (Carr & William, 1993; Sasidharan & Godbey, 2005; Shinew et al., 2004). The next section will provide a review of research on non-dominant populations’ outdoor recreation practices.

The ‘othering’ of outdoor recreation. The previous section provided context for how outdoor recreation norms were established and how those norms have been utilized to measure and assert representation of the entire population. This next section, however, transitions away from the one-size fits all mentality, to specifically review previous research on non-dominant population’s outdoor recreation usage.

Although research in topic of race, ethnicity, and leisure has had a recent increase, there is still very little literature on the subject (Floyd, 2007; Floyd, Bocarro, & Thompson, 2008; Johnson et al., 1997). Many theories have been offered to account for non-dominant populations’ lack-of or nonparticipation in outdoor recreation. Washburne (1978) developed the ethnicity or subcultural possible explanation as well as the marginality perspective, which identify poverty, socioeconomic discrimination, under-met needs, and differences in values, cultural and social norms, as factors of nonparticipation (Burns et al., 2008). Carr and Williams (1993) define marginality as “low socio-economic status, lack of access to desired facilities, and discrimination” and ethnicity as the “subcultural differences in values and expectations related to outdoor recreation experiences” (p. 22- 23). With additional perspectives that include opportunity theory, demographic theory (Burns et al., 2008), assimilation theory, and discrimination hypothesis (Floyd, 1999), researchers have yet to clearly identify measureable variables that affect visitation and use patterns for non-dominant populations (Floyd, 1999; Johnson et al., 1997). Through these perspectives, different sociopolitical factors were identified as limiting non-dominant populations’ participation in outdoor recreation. It was found that lack of discretionary income (Johnson, Bowker, English & Worthen, 1998; Tierney, Dahl, & Chavez, 1998), concern for safety, lack of awareness of opportunities (Burns et al., 2008), negative experiences with authority (Ceaser, 2015; Engstrom, 1970), structural constraints such as

transportation and information (Johnson et. al, 1998; Tierney et al, 1998), fear of discrimination and racial prejudice (Burns et al., 2008; Shinew et al, 2004), fear of new areas (Burns et al., 2008), and different historical experiences and interactions with the outdoors (Washburne, 1978) have been broadly applied to justify or explain the lack of non-dominant populations' participation in the outdoors.

In trying to understand the barriers or constraints to participation in outdoor recreation, additional research has been done to explore the use of, and desire to participate in outdoor recreation. Through the use of focus groups, researchers focused on Asian Americans, African Americans, and Latinos living in Oregon and found that all three groups identified social compatibility as being very important to how these populations recreate (Burns et al., 2008, p. 127). This included close proximity to their home, a space that was accommodating for large families, safety, and modern facilities. These findings reiterate those of previous research on non-dominant populations outdoor recreation usage, that spending time outdoors with family, food-related activities, exercise, and having large spaces to accommodate larger groups is a desired attribute (Carr & Williams, 1993; Sasidharan & Godbey, 2005; Shores, Scott, & Floyd, 2007). Additional research found that women are more concerned about the environment, and are willing to change their behaviors to benefit the environment (Kollmuss & Agyeman, 2002). Additionally, women and older subjects from non-dominant populations were more likely to visit parks on a weekly basis, and while men may be more likely to engage in outdoor recreation as a group sport, women were more likely to engage in community activities (Sasidharan & Godbey, 2005).

Some previous research has embodied a multicultural perspective, in the sense of moving away from the practices of stereotyping or grouping populations, and instead providing a more

comprehensive understanding of the role and influence of community, culture, ethnicity, and experience (Sasidharan & Godbey, 2005; Shinew et al., 2006). In their critique of previous research practices, Carr & Williams (1993) warned us that research, which utilizes homogeneous groupings, such as Black or Hispanic, do not account for cultural origins, for example not distinguishing “between Hispanics of Cuban versus Mexican origin” (p.23). Carr & Williams (1993) also disparaged the emphasis given to participation rates in individual recreation activities, rather than accounting for the meaning or significance of participation by the individual or group. They believe that:

Until we are able to view the recreationist within the broader context of life experiences whose past encounters, day to day struggles, and hopes and dreams for the future play a role in his or her recreation expectations and needs, we will not be able to fully appreciate and serve the diverse clientele now found on public lands. (Carr & Williams, 1993, p. 37)

Carr and Williams (1993) looked at Hispanic ethnicity in outdoor recreation, highlighting three dimensions of intra-ethnic variability: ancestral group membership, generational status, and levels of acculturation. Both generational status and levels of acculturation accounted for the possible influences and adoptions of social norms. When looking at four sites in two neighboring national forests in Southern California, it was found that there was not a “Hispanic monolith for using the forest” (Carr & Williams, 1993, p. 35). As part of their in-person survey, conducted by bilingual interviewers, participants were asked “what does respecting the forest mean to you?” Participants who were White, or were more acculturated Hispanics, had more awareness of the social norms associated with recreating in a National Forest and responded with statements such as “not littering, vandalizing, or having fires” (Carr & Williams, 1993, p. 35). These findings mimicked previous research which found that minorities are interested in outdoor recreation, but

participation is dependent on the degree of acculturation (Burns et al., 2008; Floyd et al., 1993) study. Carr and Williams (1993) believed that continuous and longitudinal exposure of anti-litter messaging during participants' residence in the U.S. is influential in conforming to social norms. Participants who were born outside the U.S. were believed to not be as familiar with social norms, and, therefore, focused more on the role the forest plays in participants' lives, or the experience of being outdoors by making statements such as "having clean air and water, having a safe place to come to, and having a place to relax" (Carr & Williams, 1993, p. 35). Through a review of outdoor recreation research on non-dominant populations, it can be surmised that not all populations can be grouped or generalized by background, nor across geographic areas such as a city, county or state.

Summary

In the previous section, research on outdoor recreation has been discussed. Through the literature review, descriptions were provided from past research on the lack of non-dominant populations' participation in outdoor recreation. It was consistently found in survey-based research that non-dominant populations were not a significant sample size and were, therefore, not taken into account or were grouped and labeled as low- or non-participating. Additionally, it was found that for more than 50 years the dominant culture's norms have been utilized as the benchmark for representing outdoor recreation (Floyd et al., 1993; 2008; Gibson-Wood & Wakefield, 2013; Jones & Rainy, 2006). Through this methodology, research consistently found a high involvement with and participation in outdoor recreation by members of the dominant populations. Additionally, a review of the limited literature on non-dominant populations' participation in the outdoors is also prone to the one-size-fits all mentality, grouping and labeling specific ethnicities in terms of likes and dislikes associated with outdoor recreation.

Several factors related to the effects of conservation norms on non-dominant populations and sociopolitical influences on conservation citizenship emerged from this review. On the whole, the recreational needs and interests of members of non-dominant cultures have been, and continue to be excluded from consideration (ORRRC, 1962; Jones, 2002; Weber & Sultana, 2013). Topics of exclusion, discrimination, stereotyping, and assumption to conform to norms were revealed as synonyms with non-dominant populations association with and participation in outdoor recreation. This review reveals how current research is not advancing society as an inclusive movement towards environmental conservation, but rather is statistically upholding the environmental behaviors of members of the dominant culture as being normative, and behaviors by non-dominant populations as atypical.

Up to this point, the literature review has provided an overview of the history and development of conservation norms, specifically focusing on outdoor recreation practices. The next section will provide another perspective on conservation research, pro-environmental behavior. The belief is that if someone is engaged in outdoor recreation, there is a corresponding relationship to their desire to protect and conserve those areas (Kruse & Card, 2004; Larson et al., 2011). Therefore, the next section will examine the literature on pro-environmental behavior, starting with a brief overview of previous methodologies for conducting pro-environmental behavior research. Additionally, the review will cover previous research on REB through the examination of two meta-analyses, which span 35 years of research on pro-environmental behavior.

Pro-environmental Behavior

Beginning in the early 1960's and continuing to the present, the connections between humans and nature have been explored, diagramed, and measured. Developing a model of pro-

environmental behavior has been a long-time pursuit of psychologists, sociologists, environmental educators, environmental activists, federal agencies, and social marketers (Ajzen, Joyce, Sheikh, & Cote, 2011; Boldero, 1995; Chao & Lam, 2011; Cheng & Wu, 2015; Cordano, Welcomer, Scherer, Pradenas, & Parada, 2010; Cottrell, 2003; Cottrell & Graefe, 1997; Culen & Mony, 2003; Gotch & Hall, 2004; Halpenny, 2010; Hsu, 2004; Hsu & Roth, 1998; Hwang, Kim, & Jeng, 2000; Jordan, Hungerford, & Tomera, 1986; Kollmuss & Agyeman, 2002; Kruse & Card, 2004; McKenzie-Mohr et al., 1995; Mobley, Vagias, & DeWard, 2009; Sia, Hungerford, & Tomera, 1985/1986; Smith-Sebasto, 1992; Smith-Sebasto & Fortner, 1994). These various studies utilized different approaches, theories, and definitions pertaining to conservation, environmental education, environmental literacy, and pro-environmental behavior including: pro-social behavior (Eisenberg & Miller, 1987), values-belief-norm theory (Stern & Dietz, 1994), public good (Baston, 1994), egoistic, altruistic, and biospheric concerns (Schultz, 2000), theory of planned behavior (TPB) (Ajzen, 1991), norm-activation model (NAM) (Schwartz, 1977), and stewardship (Bramston, Pretty, & Zammit, 2011). Additional variables such as sense of place (Cheng & Wu, 2015; Jack, 2010; Kudryavtsev, Stedman, & Krasny, 2012; Vaske & Kobrin, 2001; Vorkinn & Riese, 2001), place attachment (Cheng & Wu, 2015; Halpenny, 2010), direct/significant experiences (Chawla, 1998; Ewert, Place, & Sibthorp, 2005; Hsu, 2009), reading environmental books (Mobley et al., 2009), and children's REB (Erdogan, Ok, & Marcinkowski, 2012). Similar to the standard practices of quantifying outdoor recreation, the majority of research on pro-environmental behavior has been done utilizing quantitative approaches, asking participants to self-report their behaviors, beliefs, experiences, knowledge, and attitudes. However, to date, the relationship between human behavior and nature has yet to

show a consistent association with the development of or enhancement of pro-environmental behavior.

The majority of the variables used to measure pro-environmental behavior have mimicked those of the 1962 National Recreation Survey, described previously. To reiterate, the measurements and definitions of variables have catered to the dominant culture's interests, attitudes, and perceptions of the benchmarks for conservation (Gibson-Wood & Wakefield, 2013; Jones, 2002; Jones & Rainey, 2006; Larson et al., 2011). As a result, very little research has been done on non-dominant populations' pro-environmental behavior; the explanations for this void in research are economic and cultural barriers (Larson et al., 2011). Therefore, in order to gain a better understating of previous research on pro-environmental behavior, an examination of two meta-analyses specific to REB will be discussed, highlighting the general findings of each of the analyses, to be followed by a review of the sociopolitical influences associated with these findings. As mentioned above, there are a number of models and definitions associated with pro-environmental behavior. For the purpose of this study, one similarity across all of the models and previous research—the clear acknowledgment of sociopolitical influences when measuring pro-environmental behavior will be explored.

Meta-analyses of pro-environmental behavior. In the early 1970's, environmental knowledge was thought to lead to pro-environmental attitudes, which in turn were thought to lead to pro-environmental behavior (Burgess et al., 1998; Kollmuss & Agyeman, 2002). Although these premises were proven inaccurate, the first meta-analysis on pro-environmental behavior was not conducted until 1986 (Hines et al., 1987). Compiled from 128 pro-environmental behavior research studies, the collection was the first analysis and synthesis of

research on REB and produced the first Model of Responsible Environmental Behavior (see Figure 1: Model of Responsible Environmental Behavior).

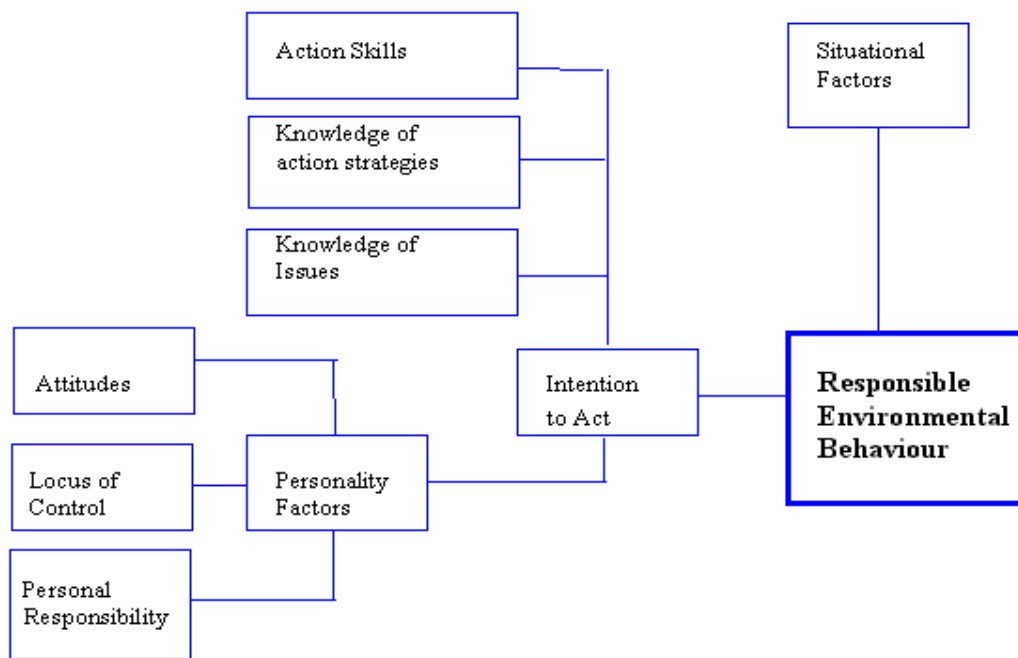


Figure 1. Model of Responsible Environmental Behavior (Hines, Hungerford, & Tomera, 1987)

This analysis, identified four influential categories of research those which looked at a) cognitive variables; b) psycho-social variables; c) demographic variables; and d) a category of experimental studies comprised of behavioral intervention approaches and classroom strategies aimed at encouraging REB, which was later excluded (Hines et al., 1987) (See Appendix D: Definitions of Variables).

From the three remaining categories, fifteen sub-categories were identified; however, for this study only findings associated with sociopolitical influences will be discussed (all of the subcategories are presented in Appendix D: Definitions of Variables). Cognitive variables, as labeled by Hines et al. (1987) accounted for factors pertaining to knowledge of the environment, environmental issues, consequences, and how to take action to resolve environmental issues (Hines et al., 1987). Psycho-social variable sub-categories included perception of self and others,

attitudes, locus of control, economic orientation, and personal responsibility. The measurement of demographic variable sub-categories included only age, income, education, and gender. The REB model also included a category called ‘situational factors’, which encompassed economic constraints, social pressures, and opportunities to choose different actions, none of which are further defined. Situational factors are said to counteract or strengthen the variables in the model. A situational factor is exemplified by this situation:

if an individual has the cognitive ability, desire, and opportunity to help stop pollution by contributing to a local toxic waste fund, but simply cannot afford to do so, that person will not engage in the environmental action and, in this instance, the model's main pathway will not be followed (Hines et al., 1987, p. 7).

The results of the Hines et al. (1987) analysis, found six factors to be influential to REB: knowledge of issues, knowledge of action strategies, locus of control, attitudes, verbal commitment, and individuals’ sense of responsibility (Hines et al., 1987) (See Appendix D: Definitions of Variables).

Twenty years later a new (second) meta-analysis was conducted, from 46 previous studies, with two goals. The first goal was to replicate the Hines et al. (1987) study with more recent publications (dating from 1995 to 2006). The second goal was to “tie up” where the previous meta-analysis ended, meaning to “[utilize] psychological action theories for analyzing the interplay of knowledge, behavioral constraints/opportunities as well as personal values and motives in influencing the decision to behave in a pro-environmental way” (Bamberg & Möser, 2007, p. 15). Similar to the Hines et al. (1987) study, Bamberg and Möser (2007) based their theoretical model on two motives previously identified in other models of REB. The first motive stems from the TPB (Ajzen, 1991) in which people are motivated by self-interest; the second

motive is pro-social, stemming from NAM (Schwartz, 1977). Examples of this could include concern for other people, species, the next generation, or ecosystems; moral or personal norms; or engaging in pro-social behavior. (Bamberg & Möser, 2007). They utilized the methodological integration of meta-analysis and structural equation modeling (MASEM) to test their theoretical model.

Bamberg and Möser's (2007) analysis identified nine variables: awareness of and knowledge about problems, attitude, perceived behavioral control (PBC), social norms, moral norm, intention, internal attribution, feelings of guilt, and behavior. However, clear definitions of these nine variables are lacking in their report. Appendix E: Psycho-social Constructs, provides an overview of how these terms are utilized throughout their research to attempt to clarify their meaning, associations, and interconnectedness (See Appendix E: Psycho-social Constructs). Bamberg and Möser's (2007) results found that pro-environmental behaviors is a mix of self-interest and pro-social (morality) motives. They also note that the intention to perform a pro-environmental behavior can be evaluated through the responses to these three questions:

How many positive/negative personal consequences would result from choosing this pro-environmental option compared to other options?, How difficult would be the performance of the pro-environmental option compared to other options?, and Are there reasons indicating a moral obligation for performing the pro-environmental option? (p. 21).

Summary

The two meta-analyses reviewed were compiled over 35 years (1971-2006) and considered over 500 studies. The results provided indicators as to what factors influence the development of pro-environmental behavior, namely: knowledge of issues, knowledge of action

strategies, locus of control, attitudes, verbal commitment, and individuals' sense of responsibility (Hines, et al., 1987). In addition, self-interest and pro-social motives were found to play a role (Bamberg & Möser, 2007). Throughout the development of each of the models, the authors took into account factors such as demographics, social norms, beliefs that one's own actions can make a change, attitudes, social responsibility, economic orientation, consequences, fear, social exclusion, and guilt. However, clear definitions were not provided for these areas, which limited the greater understanding of and accountability for the relative influences. Similar to what was found in the literature review on outdoor recreation, the dominant culture's belief system and practices were seen to be utilized as the norms, and little research has been done that could provide a better understanding of the development or implementation of pro-environmental behaviors for non-dominant populations.

The review of research on outdoor recreation use and pro-environmental behavior has created a context for understanding how current research may seek to decipher an individual's or community's level of conservation citizenship, operationally defined as the process that allows individuals to explore environmental issues (both community and public problems), engage in problem solving, and take action to improve the environment. As a result, individuals achieve a deeper understanding of environmental issues and develop the skills to make informed and responsible decisions, for this and future generations (Burgess et al., 1998; Dobson, 2007; Dobson & Bell 2006; U.S. EPA, 2016). However, this exploration and comparison of conservation norms, both in outdoor recreation and the measurement of pro-environmental behavior, have yet to reveal a substantive correlation or measurement approach for conservation citizenship. This lack of connectivity or result may be due to variables that have been excluded from previous research, namely the accounting for, or acknowledgement of sociopolitical

influences and social norms. The next section will provide a literature review on the sociopolitical influences associated with conservation norms, drawing from the factors and finding that have been the subject of outdoor recreation and pro-environmental behaviors. Additionally, this next section will highlight how sociopolitical influences may limit the involvement of non-dominant populations and communities in current practices of conservation citizenship.

Gaps in Conservation Research

The first section of this literature review discussed the history of conservation in the United States, which was then followed by a review of literature on conservation norms such as outdoor recreation usage and pro-environmental behavior. Through that review it was found that there has been a consistent divide between dominant and non-dominant populations. This divide stemmed from inadequate inclusion of non-dominant populations in previous research on these topics, even though previous researchers have articulated the need for more inclusive research practices. Up to this point, the majority of research in the area has unquestioningly worked within the norms of the dominant culture's beliefs and practices, which perpetuates the divided status quo in conservation. Some consideration has been given to non-dominant populations' perceived lack of participation in the conservation arena, or to potentially discriminatory factors that might be associated with the measurement of conservation; however, these efforts have been minimal, providing little enlightenment about why the divide may exist. Researchers in each of these fields have expressed the need for more research examining non-dominant populations' behaviors and engagement with nature. This next section will provide an overview of already acknowledged 'needs for future research' by current researchers in the field of pro-environmental behavior.

Identified Gaps in Research

In over 50 years of research, conducted within the framework of dominant cultural expectation and norms, there is a documented deficit of non-dominant populations' participation in outdoor recreation. Additionally, research in the field of pro-environmental behavior has yet to adequately account for factors that promote or develop pro-environmental behaviors. Numerous variables have been tested in order to try and quantify attributes that develop or promote pro-environmental practices and behavior, without notable success; thus leaving opportunities for improving on this area of research. The next section provides an overview of the identified areas of needs, or gaps, in current research as cited by researchers in the field of pro-environmental behavior.

Owens (2000) believes such gaps are attributable to flawed research, highlighting a need for "more deliberative and inclusionary procedures" (p. 1141, as cited in Kollmuss & Agyeman, 2002). Speaking to the model they developed, Hines et al (1987) acknowledged the need for further research to be done on the "interrelationships which exist between each of the variables in the model" and noted, "research efforts must concentrate on all factors in the environmental behavior picture, rather than continuing to isolate individual components from those variables with which they likely interact" (p. 8). Bamberg and Möser (2007) additionally identified the need for future research in two areas: a) research examining the potential importance of moral norm constructs for understanding the formation of REB; and, b) research on activation of pro-environmental norms. As stated before, while pro-environmental researchers have not provided absolute definitions of moral norms, they have concluded that moral norms can be constructed through guilt and shame when compared to or with social norms:

Guilt is an important pro-social emotion because it results in a felt obligation (moral norm) to compensate for the caused damage (Baumeister, 1998). Feelings of guilt are also closely related with social norms. A perceived mismatch between one's own behavior and social norms leads to feelings of guilt (Baumeister, 1998). Besides their impact on feelings of guilt, social norms also directly contribute to the development of moral norms. They deliver the standards what behaviour a social reference group view as appropriate in a specific context—that is what the group views as right or wrong. If an individual internalises these standards they provide the content of her/his personal moral norms. (Bamberg & Möser, 2007, p 16)

Another identified need for future research put forth by Bamberg and Möser (2007) focuses on the potential influences of cultural differences on the variables' associations.

Are there cultural differences in the impact of self-interest and pro-social motives on pro-environmental behavioral intentions? Are there cultural differences in the relevance of social versus moral norms or the role of specific emotions in the activation of moral norms? (p. 23)

The previous section provided an overview of the identified areas of need for future research on pro-environmental behavior. A theme which was continuously identified was the need to examine social norms and the influences of culture on conservation reporting. The next section will specifically look at the opposite side of privilege, power, and access through a literature review on influences that contribute to the divide between dominant versus non-dominant populations when associated with conservation. Rather than examining the dominant culture's norms as the benchmarks for comparison, this next section will review how the benchmarks have

excluded non-dominant populations' access, knowledge, and engagement with nature from conservation.

Sociopolitical Limitations

The goal of this section is to switch the perspective, meaning move away from the traditional reliance on dominant culture's norms, and instead focus on factors, specifically sociopolitical influences, which negate or limit the development of, or inclusion in conservation citizenship. For this study, sociopolitical influences are defined as the context of society that includes laws, regulations, policies, practices, traditions, and ideologies; generally sociopolitics refer to the manifestation of power relationships and how they operate in society to systematically privilege some and disadvantage others on the basis of varied dominant and non-dominant identities (Lawrence, 2005; Lui, Robles, Leondar-Wright, Brewer, & Adamson, 2006; Nieto & Bode, 2008; Shinen et al., 2004; Weber & Sultana, 2013).

A literature review of environmental racism is important for this study as non-dominant communities and populations are faced with significant issues related to their health and the environment that are real and problem filled. Sociopolitical influences are apparent through, the disproportionate distribution of harmful environmental influences situated in or around non-dominant populations' communities. Additionally, a review of the negative health effects and lack of access associated with environmental racism was undertaken to better understand how and why conservation norms are not adopted and practiced by all populations. Finally, a review of the topic of environmental racism is relevant to gain a greater understanding for the need to avoid a one-size-fits-all mentality when doing conservation research. This review provided context for the apparent failure to adopt dominant culture's conservation norms as well as the lack of participation in conservation norms. In order to better understand the role of

sociopolitical influences, the next section will review the effects of environmental racism, access, and community on non-dominant populations.

Environmental racism. As stated above, the foundation of republican citizenship places a need on community, rather than on the individual (Cao, 2015). Therefore, environmental equity implies an equal sharing of risks and burdens; however, there is not an equitable distribution of these burdens in society today (Bullard, 1993; Baugh, 1991; Cutter, 1955; 2012; Flynn, Slovic, & Mertz, 1994). Through the enactment of various laws, the use of political power, and through the division and segregation by social class, the concept of conservation citizenship has developed into one of privilege, rather than a right. Environmental racism is a product of privilege and power and has been defined as:

Racial discrimination in environmental policy-making and enforcement of regulations and laws, the deliberate targeting of communities of color for toxic waste facilities, the official sanctioning of the presence of life threatening poisons and pollutants in communities of color, and the history of excluding people of color from leadership of environmental movement. (Chavis, 1994, p. xii, cited in Cutter, 2012, p. 251)

Members of the non-dominant populations are most often the ones affected by, and subjected to, environmental racism. Review of the research on environmental racism reveals numerous barriers to the achievement of environmental equity.

The political and financial ramifications of environmental racism can debilitate communities. The affected populations are burdened with hazards because community members may not have the political or financial influence to stop them from occurring and/or may not have knowledge of the relevant effects or results (Bullard, 1993; 1996; Flynn et al., 1994; Hershey & Hill, 1977; Taylor, 2014b; USCCR, 2003). Local, state, and federal decision makers

have put in place policies that have been, and continue to be, detrimental to non-dominant groups (Barton & Tan, 2010; Holifield, 2001). Dominant-group decision makers generally uphold the dominant culture's privilege in their policymaking and practices and, as a result, seldom experience the ramifications of their implementation (Floyd & Johnson, 2002; Ceaser, 2015; Taylor, 2000). On the other hand, those most often affected by these decisions have been provided with less than adequate education and insufficient information related to the decisions made. As a result, the affected population is exposed to unhealthy and hazardous living circumstances, which has diminished the ability to get away from their now undesirable living conditions, and faces the displacement of members of the community and/or the decline in property values (Bullard, 1993; 1996; Bentley, Baker, & Mason, 2012; Ceaser, 2015; Cutter, 1995; Hare, 1970; Wolch, Byrne, & Newell, 2014; Taylor, 2014b).

The influence of environmental racism on political and financial status may limit the development of conservation citizenship. Affected populations' voices are stifled, locked in place with no clear path for change, and absent any means of advocating on their own behalf (Cutter, 2012). Members of the non-dominant group often must adhere to policies that are not created or implemented by the members of their group and/or by people who live in their community; rarely are elected representatives members of the affected groups or residents of the impacted neighborhoods (Cutter, 2012; Holifield, 2001). Consequently, the voices and needs of non-dominant populations are frequently ignored or subjected to alignment with the concerns of larger sociopolitically-influenced environmental issues (Hare, 1970; Pulido, 2000; Taylor, 2014a).

Health. Environmental racism is synonymous with the adverse effects on health and well-being of populations living next to landfills, freeways, prisons, factories, toxic waste

dumps, and any other sources of heavily concentrated pollution (Bullard, 1993; Floyd & Johnson, 2002; Pulido, 2000; Taylor 2014b). These living conditions can include living with lead-solder pipes, old water mains, deteriorated paint, contaminated soil, air pollutants, and the inability to access open space (Abercrombie et al., 2008; Artiles, Harry, Reschly, & Chinn, 2002; Bentley et al., 2012; Bullard, 1993; Pulido, 2000). Open spaces are frequently consumed by the development of factories, and when abandoned, leave behind unsafe structures, pollution, and outdoor spaces unsuitable for exercise or recreation (Abercrombie et al., 2008; Savage, 1993; Ceaser, 2015; Kozol, 1991). Exposure to these pollutants can be devastating to an individual's physical and cognitive abilities (Kozol, 1991; Pilisuk & Acredolo, 1988). Limited access to safe and open spaces can additionally hinder the adoption of healthy behaviors such as exercising (Baugh, 1991; Johnson et al., 1997; Koplan & Fleming, 2000). The next section will look at additional ramifications of environmental racism for non-dominant populations, which include limited access to open spaces and recreational opportunities.

Access. Another sociopolitical influence that may lead to limited development of conservation citizenship emerged in the evaluation of access, generally and specifically with respect to outdoor recreation usage. As described above, environmental racism can lead to exposure to hazardous living conditions for non-dominant populations. This exposure has had major implications for these individuals' health (Bentley et al., 2012; Bullard, 1996; Sullivan, 2004); moreover, this same environmental racism often limits access to clean, green, and otherwise open spaces (Abercrombie et al., 2008; Byrne, 2012; Floyd & Johnson, 2002). Lacking access to environmentally and physically safe outdoor recreation spaces hinders environmental learning opportunities as well as opportunities for direct/life experiences with nature (Abercrombie et al., 2008; Floyd, Gramann, & Saenz, 1993; Jack, 2010).

Direct/life experiences and sense of place with nature (i.e., outdoor learning, recreation, informal learning) are believed to be influential in connecting one to nature (Bamberg & Möser, 2007; Barton, 1998; 2001; Ceaser, 2015; Finney 2014; Halpenny, 2010; Kaltenborn, 1998; Kudryavtsev et al., 2012; Payton, Fulton, & Anderson, 2005; Rioux, 2011; Ryan, 2005; Stedman, 2002; Vaske & Kobrin, 2001; Vorkinn & Riese, 2001; Walker & Chapman, 2003). For many non-dominant populations, factors such as lack of discretionary funds, inadequate transportation, language barriers, fear, insufficient information, and population growth act as barriers to those important direct/life experiences with nature and the outdoors (Burns et al., 2008; Byrne, 2012; Floyd, 1999; Floyd et al., 1993; Johnson et al., 1997; 1998; Sasidharan & Godbey, 2005; Scott & Muson, 1994). For many individuals who do not have the resources to visit areas such as National Parks, an alternative would be to visit parks near their home. However, many cities lack adequate parks and open space in those communities, particularly in the lowest-income areas (Abercrombie et al., 2008; Bedimo-Rung, Mowen, & Cohen, 2005; Byrne, 2012; Sherer, 2003; Wolch et al., 2014). In an examination of neighborhoods in Los Angeles, California there were 31.8 acres of park space for every 1,000 people in White neighborhoods, compared to 1.7 acres in Black neighborhoods, and .06 acres in Latino neighborhoods (Sherer, 2003, p. 4).

Benefits of outdoor recreation are essentially being withheld from certain populations due to limited access. While non-dominant children have the desire to physically engage in outdoors activities, they do not feel as though they have access to appropriate spaces (Muñoz, 2009). While sufficient research has highlighted the need for children to play outdoors, most spaces are actually created to reflect the patterns and needs of adults from the dominant culture, validating their values and usage patterns (Byrne, 2012; Matthews & Limb, 1999). It is believed that the

continuation of these practices will result in young children developing ‘nature deficit disorder.’ This means that children will no longer be able to make connections to nature as a result of imposed policies that limit accessibility and exploration (Louv, 2008). It has been reported that youth who do not participate in outdoor activities say they are not interested in the outdoors (The Outdoor Foundation, 2013), and since the 1990’s adolescents’ environmental attitudes, beliefs, and behaviors, personal responsibility for the environment, and other conservation related behaviors have continuously declined (The Outdoor Foundation, 2013; Wray-Lake, Flanagan, & Osgood, 2010). As our future leaders, youth’s lackluster interest in the outdoors further hinder all citizens from becoming actively involved in the pursuit of a society that cares about and engages in environmental conservation practices.

Lack of access hinders engagement while, at the same time, limiting the beneficial effects associated with being outdoors. Engagement with the outdoors promotes human health through physical activity, improved immune function and cognitive function, while conversely reducing stress, depression and attention-deficit hyperactivity disorder (Barton & Pretty, 2010; Bedimo-Rung et al., 2005; Taylor, Kuo, Spencer, & Blades, 2006; Townsend & Weerasuriya, 2010). In a research review on engaging in indoor activities versus outdoors activities, activities in a natural environment were shown to result in reduced negative emotions (e.g. anger, fatigue, and sadness), increased attention span, reduced rates of childhood obesity, and improved social interactions (Bowler, Buygun-Ali, Knight, & Pullin, 2010; Kuo 2010; Muñoz, 2009).

Discussion of lack of access is an important piece of the context for this study, as previous research on conservation norms, using outdoor recreation and pro-environmental behavior as proxies, showed low participation by members of non-dominant populations. By shifting away from the focus on dominant culture’s conservation norms, and toward considering

a population's access to outdoor space, we begin to see these lower levels of environmental behavior and participation as largely shaped by sociopolitical influences (Byrne, 2012; Wolch et al., 2014). This perspective, which has been inadequately addressed in previous research, helps explain these persistent findings of low participation levels. In this review of sociopolitical influences associated with conservation, the topics of both environmental racism and access are essential to consider for a fuller explanations of past research. The next section will discuss the potential impacts of education on the development of conservation norms for non-dominant populations.

Education. The argument for access can additionally be linked to K-12 students' paths to a rigorous education and hands-on learning opportunities. The role of education is to provide students with the opportunity to learn, develop, and grow into active and involved citizens (Hungerford & Volk, 1990; Nieto & Bode, 2008). Additionally, education develops student attitudes that affect our future society (Nieto & Bode, 2008). Practices that connect learning objectives to issues, topics, and concerns directly affecting students' communities are the most effective (Barton, 1998; González, Moll, & Amanti, 2005; Ladson-Billings, 2000). This empowers students to take an active role in their learning process because what they are learning is relevant, meaningful, and possibly leads to outcomes that benefit their communities as a whole. While the educational systems strive to develop future citizens, it is also the physical and mental structure to support student's development and learning. These structures include the teaching of, and adherence to policies, procedures, rules, regulations, and impacts. However, similar to the situation exemplified by environmental racism, none of these resources are equally distributed across the U.S. education system (Ballard, 1993; 1996; Delpit, 1988;).

The learning and achievement gaps between dominant and non-dominant students continues to persist (Barton, 2001; Barton & Yang, 2000; Darling-Hammond, 2000; NGSS Lead States, 2013). Schools that serve non-dominant students, are often less likely to have the necessary resources (e.g., well-educated teachers, materials, facilities, etc.) to provide adequate learning opportunities (Artiles et al., 2002; Barton, 1998; 2001; Darling-Hammond, 2000; Kozol, 1991; NGSS Lead States, 2013). The examination of resources also exposes the influence of educational policies or sociopolitical influences in schools. When examining how public education is funded, it is most often property taxes that provide the source of financial support (Darling-Hammond, 2000). Therefore, areas with higher property values are able to provide greater resources than communities with low property values. Additionally, youth are often not considered to be full citizens, because “youth do not, generally, possess the rights of “full members” of societies (e.g., neither allowed to vote nor considered experts who can make a change)” (Barton & Tan, 2010, p. 208). Frequently offered a lesser education as well as being forced to live in communities exposed to environmental racism, non-dominant students are further hindered by the inability to act and speak against these injustices in their communities.

Education can also be provided through access to role models (Barton, 1998; Barton & Yang, 2000), career or job development (Brickhouse, 1994; Taylor, 2014a), community learning/informal learning, and community engagement/stewardship opportunities (Hofstein & Rosenfeld, 1996). These findings additionally suggests that, historically, the lack of members in environmental nonprofits, as well as the nonexistence of employment diversity in environmental organizations, has further exaggerated the divide between dominant and non-dominant populations, and hindered future generations’ opportunities for engaging in careers in the field (Bullard, 1993; Taylor, 2014a; 2015).

This review has sought to identify the gaps in conservation research by summarizing previously identified ‘areas for future research’ and shifting focus from the dominant culture’s perspective toward an examination of the sociopolitical influences that potentially contribute to non-dominant populations’ relationship to conservation norms. To that end, factors such as environmental racism, inequities in access and education have been examined. Additionally, through that change of perspective, it becomes clearer why the previous, one-size-fits all research practices in conservation have failed to offer meaningful insights.

This literature review began with an overview and history of the conservation movement in the U.S. highlighting how conservation norms were based on the dominant culture’s beliefs and practices. Utilizing trends in outdoor recreation usage, as well as measurements of pro-environmental behavior, literature has found that throughout U.S. history, conservation initiatives, measurements, and variables have consistently upheld the dominant culture’s norms as the benchmarks of comparison. As a result, populations that do not identify with, or participate in dominant culture’s activities or beliefs have been excluded or misrepresented. The literature review changed the paradigm of emphasis, by focusing on factors that do not align with the dominant culture’s perspectives, but rather hinder non-dominant population. This review provided context for the study by looking at the effects of environmental racism and lack of outdoor access for non-dominant populations. Because of sociopolitical influences, dominant and non-dominant groups remain disconnected from one another in this arena. As a result, disenfranchisement persists, often leaving members of the non-dominant populations unprepared to effectively resist practices of environmental inequality, discrimination, and racism that manifest in their everyday lives.

Summary

Chapter one provided an overview of this study outlining the problem statement and supporting the need for, and the purpose of, this research. This chapter amplified the problem statement and research purpose in reviewing how environmental conservation began, the courses it has followed, and how it may continue to progress.

Chapter three describes the study and how it seeks to address the failures of conservation research to-date. In so doing, it will provide a comprehensive overview and rationale for the research design, method, choice of participants, investigatory context, data sources, and possible limitations. It discusses incorporation of exclusively qualitative measurements of REB along with quantitative data in seeking, through an explicitly mixed methodological study approach, to answer the key questions: What are the effects of conservation norms on non-dominant populations? and, How might sociopolitical influences limit the development of conservation citizenship?

CHAPTER 3: METHODS

The purpose of this study was to examine conservation norms on non-dominant populations while accounting for sociopolitical influences on the development of conservation citizenship. Chapter one provided an overview for this study. In chapter two, a review of relevant literature was undertaken that highlighted conservation history, existing practices for measuring conservation norms such as pro-environmental behavior and outdoor recreation, and the barriers associated with the development of conservation citizenship. The results of that review further articulated the need for the study.

In this chapter, the methods of the study are outlined. This chapter will discuss the use of critical ethnography to explore the sociopolitical influences associated with conservation as well as provide the foundational information about the study, participants, and data sources.

Theoretical Perspective

This study strived to examine the sociopolitical norms of conservation that have contributed to the segregation and oppression of non-dominant populations in general, and specifically in conservation contexts. Such segregation is manifest in environmental racism and, like other forms of societal segregation, is proliferated through unfair practices that are upheld by societal law and policy. Oppression in general is found in the silencing, dismissal, and/or blatant disregard of the voices, experiences, and concerns of non-dominant populations; in a conservation context, oppression is manifest as barriers that restrict recreation and conservation opportunities for non-dominant populations such as environmental racism and limited access to all of the benefits that nature and outdoor spaces offer. Non-dominant populations have, in the past and continuing today, been excluded from, participation in, and enhancement of, local and national conservation movements (Floyd, 1999; Ceaser, 2015; Jones, 2002; ORRRC, 1962;

Taylor, 2014a; Weber & Sultana, 2013). Exclusion of these populations from these movements precludes development of conservation citizenship. In seeking to reveal the unjust progression of conservation norms and to investigate sociopolitical barriers impacting the development of conservation citizenship, this study utilizes a critical ethnographic theoretical perspective.

It is important to understand the central components that distinguish this critical ethnographic approach. Critical ethnography is not distinguished by its data collection, but by the “‘sociocultural interpretations’ that set it apart from other forms of qualitative inquiries” (Ary, Jacobs, Sorensen, & Walker, 2013, p. 461). Ethnography examines culture, which should not be confused or conflated with ethnicity: “ethnic groups are self-identified individuals in a sociopolitical grouping that have a recognized public identity, such as Hispanic or Asian Pacific Islander” (Creswell, 2007, p. 469); whereas, culture examines shared patterns of behavior, beliefs, and language that are adopted over time. Creswell (2007) refers to people with the latter common ground a culture-sharing group, and suggests that such groups can meet over a period of time, as well as on a regular basis, and often are a representation of some larger group.

This critical ethnographic study went beyond the mere examination of culture and cultural practices; it sought to understand how, through broader engagement of cultural practices in conservation-based research, a more equitable and socially just society can be brought to fruition (Barton, 2001; Madison, 2012). Accordingly, critical ethnography guided the diversified data collection approaches in creating an inquiry framework focused on the principle intentions of the research questions: What are the effects of conservation norms on non-dominant populations? and, How might sociopolitical influences limit the development of conservation citizenship?

The central tenets of this study, drawn from critical ethnography, seek to address processes of unfairness or injustice (Anderson, 1989; Madison, 2012); challenge the status quo (Creswell, 2007; Madison, 2012); identify social issues of power, empowerment, inequality, inequity, dominance, repression, hegemony, and victimization (Ary et al., 2013; Creswell, 2007); expose, critique, and transform sociopolitical powers that are embedded in social structure and labeling devices (Anderson, 1989; Barton, 2001); and empower the researcher to advocate for change to help transform society so that people are less oppressed and marginalized (Ary et al., 2013; Creswell, 2007). Through these tenets, this study seeks to bring culture to life, allowing the reader to understand the way of life of the people whose culture is at focus (Ary et al., 2013; Creswell, 2007). Upholding a critical ethnography theoretical perspective also influences the research design process. Choosing a convergent mixed methods design upholds both the methodological rigor and objectivity (Anderson, 1989) of this study by differentiating the data collection process and evaluation.

Methodology

This study used a convergent mixed methods design, collecting both qualitative and quantitative data. However utilizing a “mixed methods way of thinking” (Greene, 2008, p. 20) is more than just collecting data by means of qualitative and quantitative practices, rather it allows social inquiry to include diverse opinions, voices, experiences, and social worlds (Greene, 2008). Sociopolitics have influenced social inquiry through the pursuit of hard facts or evidence which then provided results to ‘solve’ social problems, or implement decisions and social policies such as high stakes performance measurements (Greene, 2012). This study plans to confront the sociopolitical influences on previous conservation research, by looking at “critical issues in contemporary social inquiry; the complex character of human phenomena; the location of

context in human action; the role of values in social inquiry; and the role of inquiry in society” (Greene, 2012, p. 758). Through convergent mixed methods, this study will gain a better understanding of how previous practices for measuring pro-environmental behavior and outdoor recreation have upheld social norms, while disregarding sociopolitical influences associated with conservation. This will be done through the collection of data, all of which examine the relationship of participant consciousness relative to knowledge about and understanding of environmental issues. This approach will also focus on participants’ personal/habitual environmental responsibility, citizenship action, and willingness to actively protect the environment.

The benefits of combining the data collection methods are to provide a diverse perspective of experience, voice, and self-reported behavior. Previous research on pro-environmental behavior, more specifically REB, has been primarily quantitative. The quantitative method has historically sought, through survey distribution, the correlations between predictive variables and behavior (e.g., Ajzen et al., 2011; Boldero, 1995; Chao & Lam, 2011; Cordano et al., 2010; Cottrell, 2003; Cottrell & Graefe, 1997; Cullen & Mony, 2003; Gotch & Hall, 2004; Hsu, 2004; Hsu & Roth, 1998; Hwang et al., 2000; Jordan et al., 1986; Kruse & Card, 2004; Mobley et al., 2009; Sia et al., 1985/1986; Smith-Sebasto, 1992; Smith-Sebasto & Fortner, 1994). One of the major limitations of survey-based evaluation that focuses on predictive variables and behaviors is that this excludes accounting for sociopolitical influences. Additionally, likert scale measurements do not allow participants to elaborate, discuss, or reflect on social structural constraints such as class, privilege, and oppression (Anderson, 1989). Additionally, in surveys, respondents are more likely to answer questions with socially desirable behaviors (Hines et al., 1987; Pui-Ming Yeung, 2002).

Due to this failure to account for or measure sociopolitical influences in previous quantitative research on pro-environmental behavior, qualitative data will also be collected to address that gap. Qualitative data will be collected through observation, informal interviews, and field notes. The go-along (Kusenbach, 2003) technique was selected to collect qualitative data, and will be described in further detail in the next section. This approach seeks to find connections between the role of the environment and the meaning of place in everyday lived experiences and specifically to understand how individuals comprehend and engage their physical and social environments in everyday life (Kusenbach, 2003). Drawing on Creswell (2007), a combination of both forms of data can provide a better understanding of the research problem at focus than either quantitative or qualitative data alone.

Having chosen a convergent mixed methods approach, a convergent parallel design analysis (Creswell & Clark, 2011) was used allowing the analysis of the two types of data to be distinct, while allowing both to inform the overall interpretation (Creswell & Clark, 2011). The implementation sequences of the data collection in the study allows quantitative data to be collected at the beginning and end of the semester, as well as two months after the semester is complete. And the qualitative data will be collected throughout the semester (See Appendix B: Timeline of Data Collection). Further detail of the data collection timeline is described below in the data source section. The rationale for utilizing a convergent parallel design (Creswell & Clark, 2011) is to allow examination of the survey results in conjunction with the observations to look for patterns, contradictions, or themes that were, or were not, considered in the development of this study.

Foundation of the Study

The decision to use convergent mixed methods was influenced by two previous studies on this topic, one of which used surveys to gather information on pro-environmental behavior, specifically using the REB model (Hsu, 2004), and the second of which used field observations as a method to access aspects of lived experiences (Kusenbach, 2003). Hsu (2004) examined the effects of an environmental education (EE) program on REB and associated environmental literacy variables. The participants in Hsu's (2004) study were college students enrolled in an environmental education course. Utilizing a quasi-experimental design, Hsu (2004) collected data from two classroom groups, one of which was taught through the experimental EE program while the other received the control instruction. Both groups were given a pre-test, which showed no significant difference between the two groups' REB levels or their average grades. At the end of the semester, both groups took the same survey with hopes to "evaluate the immediate effects on the students' overall environmental literacy" (Hsu, 2004, p. 39). In addition, students who were taught through the experimental program were given the survey two months after the completion of the course. This study determined that students who were taught in the experimental EE course increased their REB, specifically in the areas of students' intention to act, locus of control, environmental responsibility, perceived knowledge of and skills in using environmental action strategies, and in actually using environmental action strategies. They did not find a significant change in environmental sensitivity, environmental attitudes, or in knowledge of ecology and environmental science (Hsu, 2004).

The second foundational study was that conducted by Kusenbach (2003) who uses the go-along technique as an ethnographic research tool. In a three-year collaborative ethnographic study, Kusenbach (2003) combined observation and interviews to examine how residents in five

urban neighborhoods in Hollywood, California perceived local problems and how their daily activities and social interactions related to those understandings. Kusenbach (2003) proposes the go-along as an opportunity for the researcher to “accompany individual informants on their natural outings, and—through asking questions, listening, and observing—actively explore their subjects’ stream of experiences and practices as they move through, and interact with their physical and social environment” (p. 463). Five themes emerged from the go-along technique in Kusenbach’s (2003) study: (a) environmental perception; (b) spatial practices; (c) biographies; (d) social architecture; and (e) social realms. Kusenbach (2003) explores how go-alongs unveil complex layers and filters such as emotion, values, and previous experiences, while clarifying social contexts associated with perception. The second theme, spatial practices, reveals subjects’ various degrees and types of engagement in and with the environment. Biographies are the third theme, and are believed to highlight the many links between places and life histories, showing how individuals lend depth and meaning to their mundane routines. The fourth theme illuminates the social architecture of natural settings by identifying the complex web of connections between people—specifically, their various relationships, groupings and hierarchies—revealing how informants situate themselves in the local social landscape. The last theme facilitates explorations of social realms. This examines the distinct spheres of reality that are shaped by varying patterns of interaction: environmental perception, spatial practices, biographies, social architecture, and social realms (Kusenbach, 2003).

Both studies provide a foundation for this study. Individually considered, each study is unique in its approach and data collection process. Together, Hsu’s (2004) and Kusenbach’s (2003) work enriches the discussion of both conservation and social contexts associated with societal influences and association. Further, considering these works in tandem allows for a new

and different perspective for understanding the development and measurement of conservation citizenship to emerge.

Research Questions

Influenced by the structure and findings from the previously described studies (Hsu, 2004; Kusenbach, 2003), this research used qualitative and quantitative data to answer the questions: What are the effects of conservation norms on non-dominant populations? and, How might sociopolitical influences limit the development of conservation citizenship?

Participants

The study's participants were drawn from a quasi-experimental convenience sampling of undergraduates, recruited through Professor Grey's science education courses at Joshua Tree College a community college in the urban Southwestern United States. Joshua Tree College has approximately 36,000 students enrolled with about 19,000 enrolled as full-time students (Joshua Tree College, 2013, p. 2). Student ages varied from under 18 to over 62, with the majority of the student population falling between 20-24 years old (Joshua Tree College, 2014, p. 2). Many of the students were the first generation in their family to attend college. Joshua Tree College is a Minority Serving Institution (MSI) and was recently designated as a Hispanic Serving Institution (HSI) when enrollment rose above the U.S. Department of Education's requirement of 25 percent, to 27 percent.

All selected participants were over 18 years old with diverse backgrounds and varied experiences in the outdoors. Student participation in this study was voluntary, and students who participated in the first and second surveys were offered an extra credit incentive from their professor. During the semester, there were two opportunities for students to gain extra credit in Professor Grey's courses. The first was by signing up and attending the fieldtrips, which will be

further discussed in a later section. The second, was for their participation in the online surveys (first and second surveys). Offering students extra credit for completing the online survey does act as an incentive for students to participate in this study, but it is not coercive of their participation. Still, as the researcher, I was mindful of the incentive-coercion continuum as this study was carried out and discussed the challenges that arose in the second survey section of chapter four.

Context

This study took place in the Fall 2015 semester of the academic year and was structured around a single professor who teaches multiple general education science courses. I was connected with Professor Grey through a classmate. Through her introduction, I became acquainted with Professor Grey and then began discussing the idea of, and basis for, this study. Professor Grey was strongly motivated to become a part of it. As an outdoor enthusiast, he saw his contribution to the study as:

...an opportunity to offer my students something that they have never experienced before. Most of my students have grown up in the San Meadows Valley, but have never been to Green Stone or Lake Virtue. I want to let them experience what is in their backyard. (P. Grey, personal communication, December 2013)

Overall, Professor Grey can have up to 240 students a semester. In addition to a classroom lecture, students are offered the option to utilize their own time to participate in fieldtrips outside of their classroom. Professor Grey organizes four fieldtrips every semester, which vary in difficulty and, therefore, in extra credit points offered for participation. Students are encouraged to participate at the activity level at which they feel comfortable, and all activities are held during both the professor's and the students' personal time. Each fieldtrip has three

parts: 1) a pre-fieldtrip meeting which discussed safety and logistics, 2) the fieldtrip itself, and 3) the post-fieldtrip meeting where students shared their experience with their classmates who did not go on the trip. Previous semesters' fieldtrips have included camping in Dunes Valley National Park or Rattlesnake Preserve, hiking at Green Stone National Conservation Area, and a car tour and small hike at Striped Rock State Park.

Professor Grey offers these fieldtrips because he has a desire for students to have informal learning opportunities in addition to the classroom learning experience. He believes that these fieldtrips are life changing because, "I have students who come see me the next semester and share how they took their family to the spot we went, and none of them had ever been there either" (P. Grey, personal communication, December 2013). He also added "as the semester progresses and more students go on the fieldtrips, students will start to participate in class more, as well as link experiences on the fieldtrips to what we are talking about in class" (P. Grey, personal communication, December 2013).

Professor Grey has made a conscious decision that when he is on the fieldtrip, he is no longer their professor, rather someone who wants to make sure the group is safe and has a good time. He cited two reasons for this stance. The first reason is he does not want to project his views or experiences of the outdoors on his students. The second reason is that he does not want his students to experience the fieldtrip as an extension of the didactic instruction that occurs in the classroom; rather, he wanted them to develop connections to the outdoors and derive meaning from the experience in their own way. Professor Grey's model of informal outdoor learning is one way that conservation citizenship can be developed. These structured but informal interactions with nature have encouraged students to cultivate a connection with nature that they go on to share with their family and friends. Professor Grey's model is also one way

that students can learn to develop environmental stewardship, in that they develop a sense of responsibility for the environment through their own experience and interpretation of it.

Professor Grey recognized and believed in the benefit of connecting student learning to personal experiences. These views are in line with previous research findings, which find that hands-on, direct experiences with the outdoors allow for a stronger comprehension of content and increased connectivity with nature (Barton, 1998; Chawla, 1998). He recognizes that not all of his students have the same experiences or backgrounds, therefore a didactic model of science learning, meaning from a book or lecture in a classroom of 50, does not allow his students to collaborate, apply, or challenge what they learn in the classroom to what they experience on their own time. Professor Grey's passion for the outdoors is seen in his teaching and in his excitement about and on the fieldtrips. He feels hindered by having to teach science largely indoors. He feels he does not have the class time to dedicate to hands-on learning, so he has developed alternative opportunities to allow his students to engage in the outdoors. Moreover, he recognizes that the majority of his students have not had the outdoor exposure that would allow them to connect what they are talking about in class to personal experiences. This set of circumstances makes his students an ideal population for this study because participants, who may not have hiked before, or explored a particular area in the southwestern U.S., can be asked about what has prohibited their participation and engagement in the outdoors.

Data Sources

Both qualitative and quantitative data were collected throughout this study (See Appendix B: Timeline of Data Collection). Quantitative data was collected in the form of a survey administered at the beginning, end, and two months after the completion of semester (See Appendix A: Defining Your Environmental Behavior Survey). Qualitative data was collected

during the pre-fieldtrip meetings, on the fieldtrips, and during the post-fieldtrip meetings where students shared their experience with non-participating classmates. All qualitative data was audio recorded. All participants in the study had the opportunity to contribute to both the qualitative and quantitative data pool. Throughout the data collection process, demographic data was also collected. This allowed comparison of the self-reported pro-environmental behaviors to gender, age, education, and ethnicity. Demographics were additionally compared between the survey results and the observations made on the fieldtrips.

Quantitative

Given that one purpose of this study was evaluating conservation norms, I utilized a survey that was adapted from Hsu and Roth (1998). This survey was selected for a number of reasons. The first consideration was that the survey met the primary objective of gathering information about participants' knowledge and behaviors in regard to their conservation norms, or rather REB. Hsu and Roth (1998) reported:

The criterion for determining “responsible” environmental behavior in this study is based on a behavior compatible with maintenance of an environment that will promote the well-being and survival of the whole society, rather than one which is beneficial only to an individual or limited group of individuals. (p. 235)

The second consideration was the already established reliability and validity of the instrument in the area of REB. During Hsu and Roth's (1998) implementation of their study, the instrument's reliability was established by running an item analyses for item reduction and internal consistency, which included the use of item-to-total correlation ($r > .04$) and an inter-item correlation matrix ($r > .05$). Hsu and Roth (1998) reported that several research studies established construct validity for the survey (i.e., Sia, 1984; Antil & Bennett, 1979;

Marcinkowski, 1988; and Peyton, 1977 as cited in Hsu & Roth, 1998, p. 236). In addition to the original establishment of reliability and validity, a piloted version of their study (n=30) demonstrated test-retest reliability, and, an internal consistency assessment (n=157) was additionally run (See Table 1).

Table 1

Results for Hsu and Roth (1998) Survey Reliability and Validity

	Test-retest r (n= 30)	Internal Consistency Values α (n=157)
Responsible Environmental Behavior (REB)	0.89	0.90
Environmental Sensitivity (ES)	0.80	0.69
Environmental Attitude (EA)	0.53	0.68
Environmental Responsibility (ER)	0.71	0.84
Locus of Control (LOC)	0.72	0.78
Intention to Act (IA)	0.64	0.79
Perceived Knowledge (KNOW)	0.80	0.82
Perceived Skill (SKILL)	0.60	0.84
Perceived Knowledge of Ecology & Environmental Science (KECO)	0.76	0.78
Environmental Problems and Issues (KISSU)	0.90	0.88

For the purposes of this study, demographic questions were added to the survey as well as questions regarding participants' previous experiences in the outdoors. In addition, some of the language in the survey was changed to better align with current (2015) environmental concerns. For example, in the original survey, participants were asked about "avoiding purchasing products directly associated with damage to wildlife or their habitat, (e.g., did not "buy wildlife for release, did not buy high mountain vegetable, or high mountain tea"). This example question was changed to ask if the respondent "avoided purchasing products from companies that have a reputation of harming wildlife or damaging their habitat." Because the survey was adapted in this way, it was first piloted during the Spring 2015 semester before being implemented in this study. Only validated questions were adopted for this study.

Pilot. Two pilot surveys were administered prior to the start of this study. The first pilot was during the Fall 2014 semester. This pilot utilized a survey from the Roper Organization titled “The Environment: Public Attitudes and Individual Behavior”. This survey was distributed to all five of Professor Grey’s classes in the first two weeks of the semester. For this first survey pilot, I went to each class section gave a printed survey to each of the participants and collected it when they were done. While the Roper Organization survey’s objectives were to examine issues related to consumers’ interaction with the environment, which included environmental concerns, specific environmental behaviors, sources of information on the environment, and views of specific industries, consumer interactions were not the ideal unit of measurement for this study, therefore a new survey was re-piloted. The second piloted version of the study was in the Spring 2015 semester and was also made available to all five sections of Professor Grey’s classes—just over 200 students. Unlike the first pilot survey, the second transitioned to the use of Qualtrics to house the survey and to hold the data collected. The new survey was developed by Hsu and Roth (1998), and had 56 questions, taking participants between eight and thirty minutes to complete. This survey, as described above, copied the language and questions of the Hsu and Roth (1998) study. The first survey (n=70) was disseminated within the first two weeks of the semester via email from their professor. The second survey (n=60) was disseminated to participants after participating in a fieldtrip, and a third survey (n=25) was disseminated at the end of the semester.

As was done in the Hsu and Roth study (1998), reliability tests were run on all three of the surveys using Cronbach’s Alpha. Results indicated that all questions (56 items) were reliable (first survey $\alpha = .791$; second survey $\alpha = .914$; and third survey $\alpha = .921$). In considering future distribution of this survey, it was decided to shorten the survey from 56 to 33 questions (See

Appendix A: Defining Your Environmental Behavior Survey). The first reason was attributed to the consideration of the participant's time, as the pilot took participants up to 30 minutes to complete, and it was believed that this would deter participants from participating in the second and third distribution of the survey. The second consideration, stemmed from a similarity or redundancy of the questions. The first half of the original survey (questions 1 through 31) collected the demographics of the participants as well as how they felt about topics or issues associated to conservation, while the second half (questions 32 through 51) asked about their behavior within the last year. Questions 31-51 were removed. Lastly, questions 52-57 were kept. In deciding to consolidate the number of questions, an additional reliability test was run on the questions that were retained on the finalized version of the survey, all of which were also reliable (33 items; first survey $\alpha = .831$; second survey $\alpha = .820$; and third survey $\alpha = .808$).

Data collection. The survey distribution follows the pattern of Hsu's (2004) previous study—once at the beginning of the semester, once at the end, and a third two months after the course is completed (See Appendix B: Timeline of Data Collection). The study was introduced to the participants on their fourth day in school. As the researcher, I went to all five of Professor Grey's class sections and spoke about the study at the beginning of each class. During the introduction of the study, participants were informed of the consent process, the time commitment of participating, and the extra credit being offered by the professor for their participation. Additionally, participants were informed that their participation was purely voluntary, and that their identity would be protected throughout the various phases of data collection. I informed them that they would be receiving an email from their professor that would provide the opening and closing date of the survey, information about the consent process, the

link to the survey, the password to enter the survey, and my contact information if they had any questions.

All surveys are housed in Qualtrics and are designed to be confidential. Participants were asked to code themselves so that their identity would be protected, while still allowing their answers to be compared over time. On the survey, after participants coded their identity, they were asked to complete demographic questions about personal information (e.g., age, gender) and experiences in the outdoors. Neutral language was used throughout the survey to minimize the chance of encouraging socially desirable responses (Hines et al., 1987; Pui-Ming Yeung, 2002). The next set of questions came from the Hsu and Roth (1998) survey. The last set of questions delved into sociopolitical norms and personal reflections on the participants' experiences. In total there were 33 questions in the survey which required between five and eight minutes for completion (See Appendix A: Defining Your Environmental Behavior Survey).

At the completion of each survey, participants were given a prompt that thanked them for their participation, and specified the steps to follow in order to receive extra credit for their participation. Participants had to email their name, class and section number, and a given code word to a specified email address created by the researcher in Gmail. As the researcher, I am the only person who has access to this email account. Requesting participants to send their name and code word provides for (a) participants' names and email addresses to be collected for the distribution of the third survey when they are no longer Professor Grey's participants, (b) the ability to send the names of participants who participated in the survey to the professor so that he can allocate them extra credit, and (c) demonstrating that participants had actually completed the survey.

The first survey link was emailed to all 216 participants in Professor Grey's classes on September 3, 2015. The survey was open for ten days. On September 9th, I wrote Professor Grey an email stating that there was low participation ($n=70$) on the survey thus far and asked if he would remind his students in his daily announcements. From this email request, Professor Grey took it upon himself to send out a follow-up email to all of his participants offering 10 points of extra credit to student who participated in the survey. Several participants were confused about how to access the survey and were reminded that the password was in the body of the email they received. The survey closed on September 12, 2015 at midnight.

The second survey was distributed to the participants in the same manner as the first, via email from their professor. One question was added to this survey, which asked participants if they participated in any of Professor Grey's fieldtrips during the semester. The second survey was sent to participants on November 29, 2015 and was initially open for twelve days. An additional two days was added, as it was finals week, and it was assumed that participants may have needed more time. Similar to the first survey, there was a low response by the participants. By December 8th, only 70 percent of the participants who had participated in the first study had completed the survey. I asked Professor Grey if he would send out a reminder to his students, but he said he did not have time to do so.

The last and final survey was sent to participants on February 4, 2016 and was open for 10 days. As stated above, because the participants were no longer students of Professor Grey, an email was generated through the researcher's dedicated Gmail account, and distributed to all students who had participated in the previous surveys.

Data analysis technique. Due to the small sample size, non-normal distribution, and the use of ordinal scales in the survey, a between-groups Kruskal-Wallis H test was utilized to

convert the scores to means ranks for each group analyzed. Additionally, the demographic information collected on the survey was analyzed through descriptive statistics.

Qualitative

Observations and interviews were conducted with the participants following the go-along technique developed by Kusenbach (2003). This technique was optimal for this study because it provided the researcher the ability to more naturally observe and interview participants as they engaged in the pre-fieldtrip meetings, fieldtrips, and post-fieldtrip meetings.

Data collection. Qualitative data was collected throughout the semester using various instances of student interactions. Data was collected through audio recordings, jottings (Emerson, Fretz, & Shaw, 2011), and field notes to supplement the observations of the participants' interactions during pre-fieldtrip meetings, fieldtrips, and post-fieldtrip meetings. Pre-fieldtrip meetings occurred before each of the four fieldtrips. Professor Grey required all the students who were joining the fieldtrip to attend these meetings. All pre-fieldtrip meetings were held during the students' personal time, which was before classes began. During the pre-fieldtrip meetings, waivers were collected for Professor Grey and an overview of the fieldtrip was given. This included what to pack, and where to meet; in addition, the students organized carpool groups during this meeting. During the pre-fieldtrip meetings, the consent forms for audio recording were introduced, distributed, and collected.

The Fall 2015 semester had four fieldtrip opportunities, which included: 1) a 17-mile round-trip hike to the peak of Mt. Chester; 2) a 2.2 mile hike in Green Stone National Conservation Area; 3) a 3 to 6 mile full moon night hike close to Green Stone National Conservation Area; and 4) an overnight camping trip to Vision National Park, which included a 5 mile hike to the peak of Trail to Heaven. As described above, the go-along (Kusenbach, 2003)

process broke down the observer/observee dynamics, allowing an open and free discussion of what was taking place. During hikes, the use of the go-along (Kusenbach, 2003) included hiking and camping side-by-side with the participants, often utilizing opportunities to engage with more than one participant at time to get a larger perspective of “the role of the environment and the meaning of place” (Kusenbach, 2003, p. 456). My role was to ask questions, listen, and observe participants’ stream of experiences and practices as they moved through, and interacted with their physical and social environment (Kusenbach, 2003). Stories that emerged from the go-alongs were collected over a cross section of demographic diversity. The intent was to allow conversations and inquiries to be natural and not forced. This included noting the dynamics amongst the participants, encouraging participants to reflect on their experiences while on the fieldtrip, asking for reflections on why they have or have not ever been to a place like this before, and inquiring about their current sense of connection to nature. There was not a set interview or observation protocol for the fieldtrips, because of the desire to capture “the stream of perceptions, emotions and interactions that informants usually keep to themselves” (Kusenbach, 2003, p. 464).

The final portion of qualitative data was collected during the post-fieldtrip meeting when students returned to the classroom and shared their fieldtrip experiences with their peers who did not participate. Professor Grey asked the students who participated in the fieldtrip to go to the front of the classroom and openly share what they experienced, while allowing other students to ask questions. During this time, Professor Grey left the classroom and I stayed to observe.

Data analysis technique. All of the audio recordings were transcribed and hand coded to analyze the data. The initial coding (Saldaña, 2015) process allowed any and all topics, emotions, experiences, or expressions discussed by participants to be identified individually. All of the data

was then recoded in order by looking at the groupings of either each fieldtrip or each meeting. The first approach looked at each fieldtrip experience as a whole, meaning pre-fieldtrip meeting #1, fieldtrip #1, and post-fieldtrip #1. They were then recoded once again, to look at meetings, meaning post-fieldtrip meeting #1, post-fieldtrip meeting #2, post-fieldtrip meeting #3, etc. All of the data was coded in order to categorize information into themes. From those themes a narrative discussion of the findings was developed, which will be presented in chapter four.

Summary

Chapter one provided a synopsis of this study in its entirety. Chapter two reviewed the literature on conservation, beginning with an historical overview, in order to document how our current conservation practices were developed and how they have led to a separation of dominant and non-dominant populations. Chapter two also reviewed the literature on how measurement of conservation has favored dominant cultures' norms. Finally, chapter two reviewed sociopolitical barriers to the development of conservation citizenship.

This chapter described the design and method for this critical ethnographic study designed to address the main research question: What are the effects of conservation norms on non-dominant populations? and, How might sociopolitical influences limit the development of conservation citizenship? Chapter 4 will discuss the findings based upon the data collected. This will include data from of all three survey administrations, and also provide an overview of the four fieldtrips and the themes that emerged from that qualitative data.

CHAPTER 4: RESEARCH FINDINGS

The purpose of this study was use a convergent mixed methods approach to study conservation norms on non-dominant populations. Chapter one provided an overview for this study. In chapter two, a review of relevant literature was undertaken that highlighted conservation history and the barriers associated with the development of conservation citizenship in further articulating the need for the proposed study. Chapter three outlined the methods of investigation for the study, identifying the use of critical ethnography to explore the sociopolitical influences associated with pro-environmental behavior. Chapter four will provide the findings from all of the data that was collected.

Data Collection

As is typical with convergent mixed methods research, both qualitative and quantitative data was collected for this study. The data will be described in the following sections following the timeline of its collection (See Appendix B: Timeline of Data Collection). Therefore, the findings will be presented as follows: first survey, fieldtrip #1, fieldtrip #2, fieldtrip #3, fieldtrip #4, second survey, and, finally, third survey. As stated in chapter three, a survey (See Appendix A: Defining Your Environmental Behavior Survey) was disseminated at the beginning and end of the semester, as well as two months after the end of the semester.

A Kruskal-Wallis H test analysis was run on each of the surveys. Utilizing participants' demographic information (gender, age, ethnicity) as the independent variable and the other questions on the survey as the dependent variables with the alpha set at .05. On several of the analysis, there were a few questions that were very close to the .05, therefore I included these values in each of the tables when applicable, and prefaced the question with *** to identify that they were outside the area of significance. Although included, in the tables, the findings will not

be discussed part of the overall findings. Additionally, all of the findings took means of their Likert scale responses. When participants are asked to self-report on their own behavior (questions 13- 27), the available responses included: Never, Rarely, Sometimes, Often, Always. When participants were asked to self-report on their opinion (questions 28-32), the response options included: Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree. Other questions (e.g., 8, 9, 10, 11, 12, 33) asked participants to check all that apply or to rank for the level of importance or influence (See Appendix A: Defining Your Environmental Behavior Survey).

In addition to the data collected through the surveys, the go-along method (Kusenbach, 2003) of qualitative data collection was utilized during the four fieldtrips. This included audio recordings and observations collected during the pre-fieldtrip meetings, while on the fieldtrips, and during the post-fieldtrip meetings. Participants who chose to participate in the audio recording portion of this study were given pseudonyms (See Appendix C: Participants by Pseudonym), to protect their identity as well as to allow the reader to learn about each of the participants' story and experience as the semester progressed. The following sections will provide the findings from each of the data collection processes.

First Survey

As described in chapter three, the first survey had 33 questions (See Appendix A: Defining Your Environmental Behavior Survey). The first question prompted the participants to code themselves so that future survey responses could be linked together based on participant response; additionally, coding protects the identity of participants. Questions two through five asked the participant's age, gender, ethnicity, and level of education. The other 28 questions asked the participants about their behavior, level of commitment to the environment, past experiences, and current beliefs about the environment.

At the completion of the first survey there were a total of 103 participants; however, four of the participants identified as being 17 years old or under and their responses were removed. This left 99 participants out of a sample population of 216 participants, which equates to 46 percent participation. Of the 99 participants, 41 percent identified as male, and 59 percent as female. Additionally, 49 percent were between the ages of 20 and 24, with 27 percent between the ages of 18 and 19. The rest of the participants were over 25, in various age categories, with one participant identifying as 50 and older. The majority of the participants (n=92) reported having completed high school or some college. The final demographic question asked participants, “What is your ethnicity,” and instructed participants to mark “all that apply.” Of the 99 participants, 119 criteria boxes were marked, meaning 16 of the participants self-identified as being more than one ethnicity (See Table 2 and 13).

Table 2

Ethnicity of Sample Population for First Survey

		Identified as more than one Ethnicity							
		Two				Three or More			
Category	# of Responses	Black	Latino	East Asian	Pacific Island	Black/ Latino	Pacific Islander / Native American	Latino/ Middle Eastern	South Asian / Middle Eastern / Native American
White, White American, Caucasian, European, European American	45	3	5			1	1	1	1
Black, Black American, African American, African, Afro-Caribbean	17		1						
Latina/ Latino, Latina/Latino American, Latin American, Hispanic, Hispanic American	34			1					
East Asian, Asian, Asian American	9								
South Asian, Indian American, Asian, Asian American	1								
Middle Eastern, Arab, Arab American	3								
Pacific Island, Indigenous, Indigenous American, Asian, Asian American	6			1					
Native American, Alaskan Native, Indigenous American, Hawaiian, Hawaiian American	4				1				
Total	119	3	6	2	1	1	1	1	1

With a better understanding of the participants' demographics, a Kruskal-Wallis H test was calculated using each of the four demographic questions' responses as the independent variable and the other 28 questions' responses as the dependent variables. Findings were significant for gender, age, and ethnicity, and therefore will be reported in the next section.

Responses to three questions differed significantly based on gender (See Table 3). Women were significantly more likely identify spending most of their time with friends when they were outdoors and were more likely than men to self-report concern about the loss of natural areas and/or habitats. Finally, when participants were asked to rank the areas of their lives that they felt most concerned about, both males and females ranked family/loved ones/pets as their primary area of concern, however females responded that their social life was of greater concern than males.

Table 3

Significant Differences on First Survey Questions Based on Gender

Question	Means Rank		Chi-Square	df	Asymp. Sig.
	Males (n= 41)	Females (n=58)			
Who do you usually spend time with when you are outdoors? Friends (Group)	38.66	58.02	15.544	1	.000
I am concerned about the loss of natural areas and/or habitats.	42.88	55.03	4.798	1	0.028
If you were to list the areas in your life that you feel the most concerned about, how would you rank them Social Life	39.41	57.48	9.753	1	0.002
***I feel it is my personal responsibility to help improve environmental quality in my community	43.60	54.04	3.762	1	0.052
***I believe my own actions can influence the improvement of an environmental issue	43.67	54.47	3.696	1	0.055

Responses to three questions differed significantly based on age (See Table 4). I assigned participants to three age groups: 18-19 (n=27), 20-24 (n=49), and 25 years or older (n=23). This

grouping was configured because it appeared to be a fairly homogenous age population. It was found that participants older than 25 self-reported being significantly more environmentally sensitive and more likely to take part in legal action than those who were younger. At the beginning of the semester, when participants were asked to list the areas in their life they felt the most concerned about participants between the ages of 18-19 were more concerned about their health than either of the other two age groups.

Table 4

Significant Differences on First Survey Questions Based on Age

Question	Means Rank			Chi-Square	df	Asymp. Sig.
	18-19 (n=27)	20-24 (n=49)	25 & above (n=23)			
I am environmentally sensitive.	48.56	46.5	59.15	8.421	2	0.015
I take part in legal action to help prevent or resolve environmental problems.	39.15	53.95	54.33	6.153	2	0.046
If you were to list the areas in your life that you feel the most concerned about, how would you rank them Health	64.87	49.47	33.67	15.517	2	0.00

When using ethnicity as the predictor variable, I originally grouped participants in three groups to better analyze their responses. All participants that had only marked “White, White American, Caucasian, European, European American” were placed into Group 1 in Table 5. Participants who identified as “White, White American, Caucasian, European, European American” and one or more additional ethnicity(ies) were placed in Group 2 and participants who did not mark “White, White American, Caucasian, European, European American” were placed in Group 3. These groupings were based on the premise of dominant cultures and non-dominant cultures. White middle-to-upper-classes have frequently been referred to as those with the most privilege and power (Shinew et al., 2004; Pulido, 2000; Taylor, 2015), as well as the culture around which conservation norms have been sculpted (Floyd et al., 2008; Gibson-Wood

& Wakefield, 2013) although not always the case. This grouping was also influenced by the possibility that those who identify as White and another ethnicity (Group 2) may or may not benefit from the White privileges (Burns et al., 2008; Carr & Williams, 1993; Hunter, 2002) hence the decision was initially made to treat this group separately. With this grouping of participants, one question was found to be significant (See Table 5). It was found that when asked to list the areas in their life that they feel the most concerned about, participants in Group 3 ranked Family/Loved ones/ Pets higher than the other two groups.

Table 5

Significant Differences on First Survey Questions Based on Ethnicity (Three groups)

Question	Means Rank			Chi-Square	df	Asymp. Sig.
	Group 1 (n=34)	Group 2 (n=12)	Group 3 (n=53)			
If you were to list the areas in your life that you feel the most concerned about, how would you rank them... Family/Loved Ones/Pets	43.22	40.50	56.50	7.579	2	.023
***Who do you usually spend time with when you are outdoors? Friends (Rank)	52.82	64.54	44.90	5.900	2	.052

I then re-grouped and re-analyzed with two groupings, combining all respondents who identified as “White, White American, Caucasian, European, European American” and participants who dual identified as “White” and another ethnicity(ies), called Group 4. Participants who did not identify as “White, White American, Caucasian, European, European American” were placed into Group 3. Three questions showed significant differences in this analysis (See Table 6). It was significant that participants in Group 3 identified family as the ones who taught them about the outdoors as well as identified family, loved ones, and pets as the areas of which they were currently the most concerned. Participants who identified as Group 4 ranked their friends as who they usually spent most of their time outside with.

Table 6

Significant Differences on First Survey Questions Based on Ethnicity (Two groups)

Question	Means Rank		Chi-Square	df	Asymp. Sig.
	Group 4 (n=46)	Group 3 (n=53)			
Rate the relative influence of those that taught you about enjoying the outdoors. Family	42.93	56.13	5.553	1	0.018
Who do you usually spend time with when you are outdoors? Friends (Rank)	55.88	44.90	4.184	1	0.041
If you were to list the areas in your life that you feel the most concerned about, how would you rank them... Family/ Loved Ones/Pets	42.51	56.50	7.477	1	0.006

In summary, the majority of the participants who participated in the first survey were between the ages of 18-24, with a high school diploma or some college education. The participants self-report their ethnicity with 38 percent identifying as “White,” 29 percent identifying as “Latina/Latino,” and fourteen percent as “Black” (See Table 13).

Participants in Group 4 ranked family as the ones who taught them about the outdoors. When spending time outdoors, women and participants in Group 4, were significantly more likely to spend most of their time with friends. Women self-reported concern about the loss of natural areas and/or habitats and participants older than 25 self-reported being significantly more environmentally sensitive and more likely to take part in legal action than those who were younger. The final question, “If you were to list the areas in your life that you feel the most concerned about, how would you rank them?” found to be the most significant question in the first survey. Of the nine options, which included an option to write something in, participants in Group 3 identified family, loved ones, and pets, participants between the ages of 18-19 identified their health, and females accounted for their social life.

The next section will provide an overview of each of the four fieldtrips that were observed and audio-recorded. The collected data will be organized by fieldtrip, providing an

overview of the each of the fieldtrips, as well as a description of the occurrences and discussion at each of the pre-fieldtrip meetings, on the fieldtrips themselves, and at post-fieldtrip meetings. Following the reporting of data gathered on the fieldtrips, the second survey and extended survey findings will be discussed.

Fieldtrip #1

The first fieldtrip was a hike in the River Mountains National Recreation Area in the Great Green National Forest. This hike to the peak of Mount Chester, was 17 miles long and climbed to an elevation of 11,918 feet.

Pre-Fieldtrip #1 Meeting

The pre-trip meeting for the first fieldtrip was held on September 10, 2015. There were 25 students in attendance, 10 females and 15 males. As described in chapter three, in each of the four pre-trip meetings Professor Grey did most of the talking. Professor Grey discussed the meeting place, what to bring, and had all of the participants form a carpool group. During the meeting, students asked about bathroom accessibility and the possibility of encountering any large predatory animals. Two of the 25 participants did not sign the audio consent form. I asked to speak with each of the participants, as I had wanted to make sure that the students were clear about what the consent form was for and answer any questions they may have had. Trevor (pseudonym) who is an Asian male expressed that he was hesitant to sign because he had a strong accent, and did not think I would be able to understand him. I encouraged him not to be concerned about my ability to understand him, but reiterated that, if he felt uncomfortable with being recorded, he did not have to sign the consent. In the end, he agreed to participate and signed the consent form. Additionally, a White male student was concerned that he could not participate in any of the fieldtrips if he did not sign the consent form. I explained that study

participation was purely voluntary and he did not need to participate in order to go on the fieldtrips. He decided to not participate in this portion of the study.

Fieldtrip #1

The first fieldtrip was on Friday, September 18, 2015. The participants were instructed to arrive at the base of the mountain at 4:45 am. At around 5:00 am Professor Grey led the group of cars up the mountain to the trailhead parking lot. The temperature was about 45 degrees Fahrenheit, and the students gathered in anticipation and excitement. Starting just around 6:00 am, 24 students began the hike with the instruction to hike two miles and stop on the saddle of the mountain. The professor instructed a leader of the group, Adam (pseudonym), to head up the trail to the mountain, and Professor Grey would bring up the rear.

During the first two miles, informal interviews were conducted with five participants. I began hiking alone, then I was approached by Sarah (pseudonym), a 50-year-old White female with an already established career in art. Sarah was pursuing her associate's degree to "lay the groundwork for her two children to go to college." With only two classes remaining to complete her degree, she is unsure of her next step. She is contemplating becoming a substitute for the local school district to see if that is a field she might interested in pursuing. She is also possibly interested in learning more about non-profits, as she is a board member on the National Charity League. She candidly spoke about living close to a local recreation area and wanting to do things such as hiking but not finding the time to do it. She was displeased in her performance on the trail because she walked her dog twice a day, yet the strenuous nature of the hike was exhausting for her. During our hike to the two-mile mark, she stayed motivated and encouraged her classmates who passed her while she and I took breaks on the side of the trail. She said that she and her family had hiked a lot when her two children were young, but now she is out of shape,

suggesting that her family no longer hikes together. She shared that her last big hike happened last summer when she and her family traveled to Israel to hike Masada. We discussed traveling internationally, as she had studied art in France and lived in Australia for a year after high school. In our discussion about international travel, she reflected on her desire for her family to downsize so that they could travel more, to allow her two children to gain perspective on different cultures. Sarah was in awe of the scenery, but she found the trail to be intense and although she would like to make it to the top, she planned to see how she progressed. As Sarah took a break on the side of the trail, I continued my way up the trail.

The second interview was with Brad (pseudonym) a Black male who was in his early twenties, who was accompanied by a male student that chose not to participate in the study. Both were former students of Professor Grey and had become friends with him since taking his course several semesters ago. Both continued to participate in the fieldtrips each semester and go mountain or street biking with Professor Grey as often as time allows. Both students bantered about the different bikes and the trails they have been on with Professor Grey. Brad stated that he has been going on fieldtrips with Professor Grey since about 2012 or 2013, now totaling 15 or 20 trips in total. However, before taking Professor Grey's class, Brad had never been outside the city. Brad shared that he had never been in nature before Professor Grey introduced him, and believed that most of his classmates had not either. Brad described his introduction to the outdoors as "life changing" because he is now healthier—due to hiking and biking—and he believes that he will never stop. I inquired if he has introduced his new love for the outdoors and healthy habits to his family and friends, to which he responded that he had, even advising his sister to enroll in several of Professor Grey's courses. Both participants admired Professor Grey because of his love for the outdoors, his wealth of knowledge, and because of his volunteer work

in the community. Brad stated, “Professor Grey has the best stories of anyone I’ve ever met... that’s one of the prime motivators for me. I’ve been trying to keep up with him when we’re biking ‘cause if I can’t keep up I can’t listen to his stories.”

The last interview before making it to the two mile-marker was with Mario (pseudonym), a young male whose family is from Afghanistan, and with Angela (pseudonym), a young Latina female. Angela had never been on this trail before, but had done a few shorter hikes in the Mt. Chester area. When talking about the difficulty of this trail she shared that she had just returned from Vision National Park where she tried canyoneering for the first time. She stated that a friend of hers was a travel agent and got a free trip, which provided her the opportunity to try dune buggies and go to Vision, both of which were something she had never done. She stated that she thought if she could do that [canyoneering], then she could do this [hike Mt. Chester]. She thought that outdoor recreation might become her new hobby.

Mario appeared to be a very positive and motivated individual. He described himself as business oriented, as well as experienced and active in outdoor recreation. Stating he had already been to the peak of the mountain five times, he believed that succeeding “is all in your mind,” and said he would only give up on this trip if his back hurt or if he broke his leg. When describing his hiking and camping experiences he recommended that I visit Lake Virtue National Recreation Area, as that is where he loves to camp. He also warned that I should check the rules and regulations of those areas I intended to visit, and suggested that I bring a weapon for safety to protect myself from animals. When discussing the other fieldtrips offered this semester, Mario shared that he wants to go on the fourth field trip to Vision National Park, as he had been there before and thought it was beautiful. However, he believed that most of his classmates would not go on the Vision fieldtrip because of the time required and the difficulty getting time off from

work. During our discussion, he shared that his focus right now is on school, but was lucky because he can work with his family and friends on the side. He stated that his brother and family pushed him into college. His family and friends operate a few businesses in town, however he feels pressured to be a doctor or engineer because of his family's history in Afghanistan. He knows these careers are likely not the right fit for him, and instead expressed a desire to pursue a career in which he knows he would be happy and successful. When we discussed my educational path and research area, Mario shared with me that he had participated in the survey at the beginning of the semester, but had forgotten to email me. Then he changed his story and said that he actually had not known what to email, so he did not send anything. He said that he felt "stupid" and decided to not say anything because he did not want to ask a "stupid question." As Mario and I turned a corner, we realized we had made it to the two-mile marker and were greeted by his classmates.

As the rest of the group trickled up to the two-mile mark, I met Beth (pseudonym) a mother of two, who works two jobs, and is a full-time student. We began our conversation by talking about the equipment we had brought on this trip and she mentioned that the last time she had used her backpack bladder was during a summer trip to Vision National Park where she hiked the Cliffs with her family, a famous trail in the park. That trip was the first time she and her family had been to that park. She boasted about her kid's performance on the trail, as her daughter, six, and son, 12, were "brave" and made it more than half of the way up the Cliffs. She was very proud of her daughter, who said, "I am a good hiker mom." She described her family's trips to other National parks, and her love for camping and the outdoors. She had purchased an \$80 federal lands pass, which allows access to federal lands for one year, and stated she wants her family to "go to all the beautiful spots in the United States." They had made plans to go up

the Oregon coast to do more camping, but her husband had started a new job so they were not able to take that trip.

Beth described that her daughter “loves to camp” and began to reflect on children as a whole. She does not think that most children are lazy, but they are not given the opportunity to do things. She shared that she was introduced to the outdoors through a fieldtrip in 5th grade, when her class came up to Mt. Chester. She said that she loved it because she was there with all of her friends. Even with that experience, she expressed that she still did not know about all of the hikes Mt. Chester offered such as the trail we were currently hiking. She was grateful that Professor Grey had provided her the opportunity to go on this hike and been optimistic to make it to the top in spite of some anxiety in the week leading up to the day of the hike. She wanted to do well on the hike, so she had been going to the gym to train on the stair master. Additionally, she was concerned because the last time she went on a short hike she got a headache, which turned into a migraine. In class, she had been taught about acute mountain sickness, or altitude sickness, and was concerned that she would get a headache on this trail due to the elevation gain.

Now around 7:30, about an hour and a half since the start of the hike, Professor Grey made it to the two-mile mark and regrouped the class. The group discussed that two people had turned around and returned to the cars. Another three people, who had made it to the two-mile mark, decided they were not going to continue up the trail. This took our group from 24 down to 19. Professor Grey asked Adam to continue to be the leader of the group, as he had been on this trail several times before. Professor Grey’s instructions were to continue up the trail and to stop every 30 minutes.

As the group made its way further up the trail, several of the participants began talking about their majors. Joseph (pseudonym) approached me and asked me about my doctoral

program and what someone with that type of degree does. We discussed my educational experience, from undergraduate to Ph.D., and then he asked if the work I was doing on Professor Grey's class was part of a report. I explained the process of a Ph.D. program and how this was part of my final report for my degree. I then asked him what he was interested in, and he shared that he was about to complete his associate's degree in criminal justice, but was thinking about entering the field of science, specifically biology. He described himself as "attracted to science," especially "chemical science." He said that his friends told him biology would be difficult, but he thinks he can do it. I shared with Joseph my personal struggles during my undergraduate work, and advised him to pursue internships and jobs that would add knowledge and interest, and give him experience in what he was studying. He said that he was doing that now, as his family owns a pool cleaning company. Although he was proud of his family for owning a business and loved that they are their own boss, he hated the work. He said that every day he was reminded by his father's actions and words that, if he did not want to be in the family business, he needed to get an education. Joseph grew up in Mexico, and stated that he "came over here and got everything in order and now got to do something with [his] life." He described his family as being "old school Mexican" with many of his family members employed in landscaping, which was he described to be tiresome work. Further into our discussion, Joseph shared that he had been to Mt. Chester before, but only at "the lower levels" of the mountain rather than "way up here."

As the group hiked on, we stopped every thirty minutes to regroup and check-in with each other. Along the way each participant motivated and cheered on their classmates' progression up the trail. At each stop, participants marveled at the beauty of the scenery, whether it was because of the vibrant colors of the changing trees or because of the height we had reached thus far in the journey. Along the way Mario boasted about all of his outdoor adventures and his

workout routine. One of his peers shared that he would like to try to go hiking once a month, and Mario stated that he plans to hike once a week instead of going to the gym. The two of them discussed areas in the San Meadows Valley that were good for running. Mario said he really preferred Mt. Chester because there are so many places to go.

As we progressed, Beth and I found ourselves on the trail together and she asked me about my major and wanted to learn more about my study. This led to a conversation about children spending too much time indoors; she believed that children need to be taught to appreciate nature so they would learn to care. She thought that children “dump shit outside.... [and] throw things out the window because kids naturally do things like that.” She shared that her son had had some difficulty in school, and she was concerned about his not fitting in and feeling “stupid.” She was considering taking a class in education or teaching so that she could better mentor and motivate her children to learn and succeed in school. Beth stated that her son learned differently than other children. She sympathized with him by telling him that she had not felt smart when she was in school either. She continuously declared that lack of time was a major obstacle for her, but she felt making time for her children was important and something she needed to focus on. Beth also thought it was important to be a good student herself so that she can help her children succeed in school. She shared that she was going to try to change her work schedule so that she could be home with her children when they get home from school. She said she did not want her children to feel like education was forced upon them, but wanted them to have a drive for knowledge.

Time pressed on and the group continued to progress up the trail. At one of our breaks Bill (pseudonym) a Latino male commented, “there is a reason why not everyone goes up these mountains. And know I know why.” Bill hiked with both knees in compression sleeves and with

hiking pole that one of his peers had given him, to help get him up the mountain. He had developed tendonitis in his knees his senior year of high school and has had to protect his knees ever since. Before my conversation with Bill could progress, the group realized they were unable to identify the trail, and decided to stop to allow Professor Grey, who was in the back of the group, to catch up and direct us further. While on break, Mario asked if there were any predatory animals that we should be concerned about, such as lions. Additionally, Bill asked if there were big horn sheep in the area, as he had been to the Lake Virtue National Recreation Area and seen a herd of them there. At this break I met Samantha (pseudonym) a young Black female, who was a musician with high energy and enthusiasm. Samantha shared that her toes were starting to hurt her and that her backpack was too heavy. On this break Adam, who stated his family had a strong Italian background, praised Professor Grey for his timing of the hike, calling him a “wizard” with predicting the weather. Earlier in the week the weather was stormy and he was concerned the fieldtrip would be cancelled; however, Professor Grey predicted that it would be clear, and it was a beautiful day. Adam took pride in having been on the trail before, and really lit up when he shared his knowledge of the trail and landmarks with his peers.

On our next break, I invited Samantha to join me as we commiserated over our feet needing some attention due to our rubbing boots. While we attended to our feet, she shared that, for the past two years, she had participated in a peace walk where she walked 70 miles over the course of a week, from San Meadows to the nuclear test site. Additionally, the peace walk, and the people she met there, were what introduced her to the outdoors. While growing up she had never been hiking with her family, but thinks that she had maybe been to Mt. Chester with her church once or twice. Samantha said, “it wasn’t until after I graduated high school that I started doing – like I think I was like 21 the first time I went camping.” She claimed that her first

camping trip had been with her friends/co-workers to Lake Virtue National Recreation Area, and then this year her friends took her to Vision National Park for the first time, and she really like it. Although she was only taking this class for general education science credits, it was not until she participated in a preparatory hike with Professor Grey that she started learning about nature, such as the names of trees and plants. She was excited to share her experience with her family, so while she was on the prep hike she collected some pinecones and showed them to her three-year-old nephew who had never seen them before; she stated that he was initially afraid of them.

Samantha additionally attributed her new interest in the outdoors to a South American friend, who she referred to as an ‘Inca man,’ who took her to an area on the outskirts of town where people have gone in the past to ‘party and break beer bottles.’ Her friend encouraged her to go up there for a drum circle and to help clean up the area. She said another friend made the statement that he “needed to get away [from the city] at least once a week because his body is like a car and his tank gets empty if he doesn’t get out of nature.” She had begun to adopt his mantra, and was trying to incorporate this practice into her life.

During our conversation, she brought up her participation in the survey associated with the study, and reflected on the questions; she said the questions were interesting as “there were things that I didn’t really think about but kind of thought about.” However, she did not elaborate on what she meant by that statement. Instead she discussed her recognition that this hike was going to be difficult and anticipated using meditation to get her through it. Samantha said that she wanted to talk herself out of this hike, and that she had had negative thoughts about not being able to complete it. But now she was excited that she had made it to this point and was focused on making it to the top and telling herself that she wanted to do this. My conversation with Samantha ended as we came to the last stretch of the trail before hitting the peak. It was about

10:30 am and we had been on the trail since 6:00 am with one more hour to go. This stretch of mountain had several switchbacks and as one progressed, it seemed to be never ending. It was probably the most difficult part of the entire trail.

Fifteen participants made it to the peak, at almost 12,000 feet of elevation, in just about five and half hours. Once at the top, everyone had a few moments of celebration and congratulated each other. Each person took some pictures, signed the logbook at the top of the mountain, then took out snacks and/or laid down on the dirt and rocks to rest. While everyone was resting, a 65-year-old woman who was joined us at the top; she was excited to see such a large group, and shared that she had been to the peak already 10 times this year. She was very encouraging to all of the participants telling them that she was proud of them for making it to the top and told Professor Grey that she had wished more people would take the time to take children outdoors. After about 30 minutes at the top of the mountain, a group photo was taken, and then the group began the trek down the mountain.

The hike down the mountain took on a bit of a different feeling as everyone was tired, and knew they had a long descent ahead of them. On the hike down, I kept pace with Adam and Beth. We bantered a bit about the scenery, school, and personal life, but mostly motivated each other to keep moving forward and make it back to the trailhead. We talked about how we doubted ourselves and were not sure we were going to make it to the top, but were so happy that we finished.

Post-Fieldtrip #1 Meetings

At the end of each fieldtrip Professor Grey asks the students who came on the fieldtrip to stand in the front of the class and share their experience with their peers. The first fieldtrip recap was held the Monday and Tuesday after the Friday hike. The first group to share their experience

included Bill and three of his classmates. Bill, who had hiked with the compression sleeves on his knees, expressed that the experience was “horrible,” and told the class not to do it. He shared his experience meeting the 65-year-old woman on the top of the mountain and how interesting he found the Bristlecone pine trees, because they were so massive and yet lived right on the edge of the mountain. When asked if he would do it again, Bill said that he would not do it again within a year, and would have to do more preparation. A classmate asked what the most memorable part of the trip was. Bill stated that it was when the professor gave him a piece of licorice at the top of the mountain. However, he later described feeling proud of himself for making it to the top. Another student who went on the hike shared that, while we were hiking, he saw some deer, but he was disappointed because his phone did not record properly. A classmate who did not go on the hike asked a lot of questions about participants’ experience and stated that he had really wanted to go on that hike with the group but could not go because of work.

The next class to share their experience included Mario, Angela, and Taylor (pseudonym). Mario, who while on the trail boasted about his physical ability and experience with hiking, reflected that he had fun, that it was worth it, and he was willing to do it again, but continuously talked about the difficulty of the climb especially during the final ascent to the top of the mountain. He said the elevation was particularly difficult and, although he loves hiking, he was exhausted by the end and just wanted to get off the mountain as soon as he could. Angela stated that she and Taylor did not make it to the top, and said it was the hardest thing she had ever done in her life. Nevertheless, Angela felt that it was a good experience and said she would do it again, but would need more training before she attempted it. The class asked the three of them about the professor, who was not in the room, and what he was like on the hike. They reported that he was great, that the hike seemed to be really easy for him, that he was

always motivating them, and that he had a really good attitude the entire way. When talking about Professor Grey's ease of climbing the mountain, Taylor also talked about the 65-year-old woman they met on the trail and how surprised he was at how quickly she hiked.

Taylor discussed the difficulty, the adverse effects of the elevation gain, and the 10 hours it took to complete the trail; however, he stated that everything was great and that he would do it again. He encouraged the class to go to the trail, and try to make it to the two-mile mark, because the view was amazing. One of their classmates raised her hand and shared that she had signed up for the hike, and explained that she had done it last year, however she "chickened out" this time because [she] knew she would not be able to finish...." Taylor, a Latino male responded:

Honestly, I wasn't gonna sign up for the hike either 'cause I was pretty intimidated by the 10 hours and the hiking but just through the progress that we made together--like all of us as a class--I think I did pretty good. I think everybody did pretty good cause like people you judge them by just the physical standards and even they made it up and even I couldn't make it up cause I didn't make it to the top, we stopped probably like, I dunno, four or five miles before the top of the mountain, and that was just the basic of the stopping point but if you have at least the willpower to even sign up, I think that's a round of applause to you guys, if you guys even try it, to make it to the two-mile point or even go, I think that takes a lot of courage because that mountain really tests who you are and how much you can push yourself on that day

The three of them further discussed the need for good shoes, when on this hike, and Mario recommended a specific brand of hiking boot that costs about \$120, Taylor then spoke up and said he could never afford anything like that and that he hiked in a pair of \$20 shoes. One of their classmates who did not go on this hike, Leigh (pseudonym, who will be further introduced in

fieldtrip #2) said, “Ain’t nobody paying that much to go on a damn hike.” Professor Grey usually allows about 10 minutes for the participants to share their trip with their peers, however this session lasted close to 17 minutes, so Professor Grey came back into the classroom and ended this discussion.

The third class that stood in front of their peers to discuss their experience included Drake (pseudonym), Betty (pseudonym), Adam, Samantha, and Trevor. Samantha began with sharing that she was really happy that she did it. She had met Adam in a study group the day before the hike and thought that it was so “neat” that he became our hike leader. She stated that it was the hardest thing she has ever done, both mentally and physically, but overall she thinks it was one of the best experiences. Adam shared with the class how everyone came back broken and hurt with bruises and sunburns; however, he agreed that even though it was one of the hardest things to do physically and mentally, it was also the most rewarding. Trevor, who declared himself to be the only Asian to make it to the top, stated that the hike was really hard, but it was fun and he was proud of himself as it was his big challenge. Betty, who is married to Drake, did not make it to the top. She turned around with Sarah at the two-mile marker. She expressed that it was really hard for her, even to the two-mile mark, but she still had fun and would probably do it again. Drake thought it was challenging and very hard, but he got to see a lot of different views, was proud of himself, and overall had fun. Like his peer, Drake declared that he was the only Montenegrin to make it to the top. During their discussion, both Drake and Samantha kept referencing the views and how great the experience was. As in the first two classes, Samantha shared her interaction with the 65-year-old woman and said how she was surprised and impressed by her.

The class asked a few questions about what they saw on the top and what does the elevation feel like and also asked, “Do you think that this hike will push you guys to like climb other mountains in other places? Cause you know you done this one you think you can do it anywhere else?” Adam responded,

It does encourage you to keep wanting to push yourself. Like he [Professor Grey] says, you learn about yourself as you challenge yourself, you see your breaking points and you do learn a lot about yourself as much as you learn about the area, right?

Both Drake and Samantha agreed. Another classmate asked Betty about turning around at the two-mile marker, Betty shared that she was with two other people, and they stuck together for the rest of the day by taking naps, getting some food, and enjoying being in the mountains. The last question asked was about how well the trail was marked. Adam responded that the trail was well marked; however, there were a few spots that he was unsure about. Drake spoke up and said, because he was in the front of the group during the hike, he actually did get lost, but was able to find his way back to the trail.

The fourth class to recap their visit had Sarah and Beth. Sarah, the oldest classmate to participate, began by sharing how positive and excited everyone was. She said the best part about the day was the exchange with the people, stating that it...

was really neat to come together and learn about each individual journey and where we are in life. The actual hike itself was extremely strenuous. I didn't make to the top. I don't feel bad about that It was amazing. I wish I had the time to do the prep hikes which I would strongly recommend to train for something like this.

She further stated that she is definitely going back to that trail just to enjoy what is so close to us. “It's in our backyard and I don't think we take advantage of it enough.” Later on in the interview Sarah said:

I definitely recommend it, I mean it's one of those things—a little bit of an older student I keep telling you the advice that I received is to be open to new experiences, be open to new people, don't be afraid to ask questions and don't let your fears get in the way because I didn't make it to the top but I had an incredible experience and met incredible people and that's a memory that will stay with me forever and it's something I would encourage you all to try even if you couldn't do it this time.

Beth, mother of two with two jobs and a full time student, expressed that it was a great experience and that everyone helped each other and tried to get up to the top. Overall she said it was worth it, and that it was fun.

The last group to share consisted of Matt (pseudonym) and two male peers. Matt is from Ethiopia and opened the discussion by comparing this fieldtrip to his previous experiences in other countries. He said that his previous learning experiences in Ethiopia included interaction with peers, working and studying together as well as sharing ideas. He believed that this type of learning environment developed their bonds and improved their learning. He said this fieldtrip was the first time in the United States that he had experienced this kind of learning. He said he believes that Professor Grey is physically and mentally changing each of them because of their interaction as a group.

The second classmate shared with the class that he and Matt worked together to make it up the mountain, and encouraged each other to keep going. He reported that it was definitely tough but it was a good experience. He talked about the 5,000 feet elevation gain on the trail, as

well as the 65-year-old woman the group had met on the top of the mountain who encouraged everyone. All three of the males expressed how rewarding it was to make it to the top, but also how drained they were by the time they made it back to the cars. They shared how they saw shooting stars and deer, and tried to explain to their classmates the vibrant colors of the leaves. Two of the three said they would never do the hike again. However, all three thought that they learned more about themselves than they did about nature, and all three agreed they would like to go on another hike with Professor Grey.

Summary of Fieldtrip #1

The first fieldtrip included a pre-trip meeting, a 10-hour hike with an elevation gain of more than 4,000 feet, and post-fieldtrip recaps where the students who participated in the fieldtrip shared their experience with their peers. During this fieldtrip, interviews were conducted with and/or experiences were shared by Trevor, Sarah, Samantha, Drake, Betty, Taylor, Brad, Beth, Angela, Mario, Adam, Joseph, Bill, Matt, and Leigh. Many themes emerged from the interviews and discussions. Several of these themes emerged during the pre-fieldtrip meeting, while on the fieldtrip, or during the post-fieldtrip recaps. Some of the prominent areas that were frequently voiced were fear of the unknown and of the outdoors, and spending time with family. Many of the participants expressed a fear of wild animals or getting lost—based on previous experiences in the outdoors. This is similar to the findings associated with deterrents for outdoor recreation specifically with safety concerns and fear of new places (Burns et al., 2008). A majority said they would like to introduce what they had learned and experienced to their family. The participants in this current study also shared that once they had had this opportunity to experience the outdoors, they would definitely return, and that they really enjoyed the comradery of engaging with their peers in the outdoors. This mimicked the findings of previous research on

direct and life experiences as well as sense of place with nature (Halpenny, 2010; Kaltenborn, 1998; Kudryavtsev et al., 2012; Payton et al., 2005; Rioux, 2011; Ryan, 2005; Stedman, 2002; Vaske & Kobrin, 2001; Vorkinn & Riese, 2001; Walker & Chapman, 2003). Other themes that emerged were participant's sense of pride for their completion of, or attempt at hiking such a long distance, with many of the students claiming this was the most difficult thing they have ever done in their entire life. Students motivated each other during the hike, and when they shared their experience with their peers during the post-fieldtrip recaps, the participants continuously acknowledged the support from their peers and from Professor Grey, all of which helped them complete the hike. During discussions, hindrances to activity in the outdoors focused on three themes: work, time, and physical ability (e.g., out of shape). Participants expressed their desire to more things outside; however, they did not feel they had the time to do more. These themes match previous research deterrents as well as highlights sociopolitical factors linking experience to opportunity (Ceaser, 2015; Johnson et al., 1998; Sasidharan & Godbey, 2005). Other themes that were common in the first fieldtrip included discussion of the beauty of nature, education, the protection of the environment, access, and the health benefits of recreation.

Fieldtrip #2

The second fieldtrip was to the Green Stone National Conservation Area (Green Stone). The group hiked the Magma Thrust trail, which is a 2.2-mile roundtrip and is categorized as "easy" by the park service. The original date of the hike was supposed to be on Friday October 16; however, weather caused the trip to be postponed a week.

Pre-Fieldtrip #2 Meeting

The pre-trip meeting for the second fieldtrip was held on October 1, 2015 at 7:00 am. 43 students attended to learn about the logistics of the hike. Similar to the first pre-trip meeting, Professor Grey did most of the talking, and instructed the participants to form carpools.

Fieldtrip #2

The second fieldtrip was held on Friday October 23, 2015. Students were asked to gather at the front gate of the Green Stone National Conservation Area at 5:45 am where around 20 cars gathered. The gates for the park did not open until 6:00 am, so Professor Grey communicated with the participants that there were too many cars and everyone would need to go to the Visitor Center first to consolidate the number of vehicles going to the trailhead. Each car paid their entry fee and went to the Visitor Center parking lot; however, some of the students missed the turn-off to the Visitor Center in the dark and began driving the 13 mile one-way loop through the park. Students who had followed directions, consolidated vehicles, then followed Professor Grey to the trailhead parking lot. Once at the trailhead, Professor Grey was met by a park ranger from the Bureau of Land Management, who had helped the students who missed the turn-off get to the correct trailhead. The park ranger asked Professor Grey to split the group of 40 into smaller groups so the group did not crowd out other hikers.

Professor Grey gave some instructions to the 38 students who came on this fieldtrip then began to split the participants into three groups of roughly 12-15 each. The hike began around 7:30 am and it was very cold outside. The first group to leave the parking lot had Brad, from the first fieldtrip, lead them as he had been on that trail before. The second group had Tanya (pseudonym) as their leader, however she had never been hiking before. The third group had a

male student lead them who chose not to participate in this study; however, he had never been on the trail either.

I was hiking with the third group and tried to begin a conversation with participants by asking them if they had ever been here [Green Stone] before, and the only response was ‘yes’. There was some banter about people getting lost, but there was not too much interaction amongst the participants. Some people were hiking alone, and a few people were having quiet conversations with one of their peers. The group I was hiking with did not see the trail marker for the turn off and strayed from the correct trail about a mile. Once realizing that we were lost, most of the group looked to me for some guidance on what to do. This was about the same time that the other part of the group realized that we were not close behind them and sent a few participants to look for us. We moved to higher ground and were able to get on the right trail. The walk back to the other groups was quiet and in a single file line, and therefore difficult to initiate dialogue.

Once back with the rest of the group, spirits lightened and I decided to speak with Drake, who had titled himself the first Montenegrin to summit Mt. Chester on the first fieldtrip. I had run into Drake and his wife Betty, at the local REI store when they were purchasing equipment for a previous fieldtrip to Vision National Park. He and his wife decided to purchase some equipment as Drake had never been camping before and it had been several years since Betty had camped. Because I had a familiarity with him, I thought I would take this opportunity to learn more about him. I asked him if he and his wife came to Green Stone often. He responded by saying that they did visit the park often but it was usually to drive around, and had only been hiking once before. We discussed the REI yard sale, and he shared that he liked that particular

sale when he lived in Nantucket, because “all of the rich people would just get new stuff every year.”

Both he and his wife had been to Vision National Park, but had never camped. I asked him what brought him from Nantucket to San Meadows. Drake shared that he and his wife, who was raised in the City of Orange, California and is fluent in Spanish, was offered a union job and San Meadows was a cheap place to live. I asked him when he began doing things outside, and he said it began when he lived in Montenegro. At that time, he lived next to “the hill,” which was covered in trees. He did not hike there, because it was more of canyon, but he would go by car into the mountains. He described the climate as having all four seasons—something he now missed. He loved the trees there and described going to the tops of the hills where you could see almost half of the country.

While talking with Drake, I noticed that Tanya was falling behind in the group. She stopped, while the rest of her classmates pressed forward on the trail. I and two of her classmates, Thomas (pseudonym) and Debora (pseudonym), stopped to wait with her. She exclaimed that she did not think that she could keep walking, was having trouble breathing, and was getting dizzy. Although the morning had started cold, the temperature had warmed up considerably and Tanya was still wearing a black sweatshirt. She had brought one 20-ounce bottle of water and one bottle of lemonade. She stated that this was her first time hiking, saying that she wanted to try hiking, but did not think that she would be able to continue on the trail. She was concerned about holding the three of us up, and apologized for not feeling well. She suggested that the three of us keep going and leave her behind. She felt a bit panicked because she had never felt this way before, and attributed it to being out of shape. I tried to get her mind

off of how she was feeling so I asked her where she was from. She said that she lived in Riverside, California, but was born in Los Angeles.

Both Thomas and Debra were supportive and concerned with Tanya's health. Thomas was a White male who had recently completed his committed time in the U.S. military. He was in exemplary shape and, unlike Tanya, did not need the break from the hike to catch his breath, but had wanted to ensure Tanya was OK. Debra, a Latina, additionally wanted to ensure Tanya's well-being. Thomas asked Tanya if she was diabetic, and shared that his daughter has type I diabetes; therefore, he is always prepared with a snack which he offered Tanya. Debra shared that her son has type II diabetes. Tanya said that she has been encouraged to get tested for diabetes, but heard that she would be unable to eat for several hours and she feared she would pass out, so she had never been tested.

Tanya said that she was feeling nauseated, but reiterated that she wanted to see what it was like to hike, and then later shared that she was also afraid of heights. After a bit of a rest, she suggested that she wanted to keep walking so we packed up her water and sweatshirt, and we got back on the trail. Once on the trail, I asked her if she thought she would ever come back to Green Stone. She said she thought she might come back with her family because her sister talks about coming to Green Stone, but she wanted to see how she did that day so she would have a better idea of what was in store for the next time.

Tanya said, "At least I got the first one in my life out of the way." I asked her why she thought she had never hiked before, and she said that she was a single parent for a long time and that "it is not her kind of interest usually." We talked about her fear of creatures that lived in the outdoors such as spiders and snakes and she shared a story about how a tarantula once chased her and her sister. Our conversation was interrupted by Professor Grey, he gave her some words of

encouragement, but advised her that this was a good point for her to stop. He suggested that she sit in the shade and wait for the group to come back. She told Professor Grey that she “tried it”, and he told her that he was proud of her, because there were a lot of people who did not try it. I stayed with her for a little bit longer and we talked about how she could now bring her family to Green Stone “maybe if I get in a bit better shape”. I brought Tanya to a high point on the trail, and she stated that she was happy she had made it this far, and she was going to stop. Before I left, she inquired if there were restrooms close by, I told her unfortunately the only restroom was back where the cars were parked. Tanya agreed to stay at that point on the trail till the group returned.

I re-joined the group at the turnaround point of the hike. Some of the participants sat down to eat a snack, while others did some exploring. Samantha, from our first fieldtrip, began to hike up the edge of the mountain and had given one of her classmates her phone to take pictures of her. Her classmates who were sitting next to the photographer were concerned about Samantha going up the mountain so high and getting away from the group. Leigh (pseudonym) seemed to be bothered by Samantha’s personal adventure and was sure that she was going to hurt herself. Professor Grey provided the students with an overview of why this hike was geologically significant, as the limestone, which was now on the surface and visible, was very typically many layers beneath the surface. Then the group began the 1.1 mile walk back to the cars. On the walk back the next interview was with Diane (pseudonym) a White female. Diane was hiking in what might be described as biker booties, very loose boots that went right above her ankle, with a bit of a heel. A lot of participants commented on her shoes, and she thought they were soft and therefore the best choice for this hike. She continuously commented on being out of breath and out of shape. Given her strong accent, I asked her where she was from and she answered that she

was from Poland. When I asked her if she had ever been to Green Stone before, she responded that she was “too out of shape to be doing stuff like this.” Later, when we took a short break, she stated she had gained 50 pounds after her pregnancy. Her daughter is four years old now, but with the reality of life and two jobs, she had really become out of shape.

The last dialogue that was captured during the hike was not by interview but an interaction between two participants, Brad and Leigh. Brad, was part of the first fieldtrip and was a former student of Professor Grey’s. Leigh is a Black woman, a mother of three, and a grandmother of three. I walked up on their conversation as Leigh, who had earlier expressed a strong opinion about Samantha’s action of climbing up the hill, was sharing her beliefs that taking a science class was a waste of her time and money because she was not going to use science in her career choice. She wanted to finish school so that she could become a juvenile probation officer working with kids and teenagers, because she believed that was her life’s calling. Brad was trying to explain that when looking at society as a whole, it was better to engage participants through education, by teaching them about general education topics such as science, to “increase the average quality of citizens.”

Brad: Because it [science] gives you a perspective of the world that....

Leigh: Science has nothing to do with the field I’m going into, nothing.

Brad: It has everything...

Leigh: No it don’t. Juveniles ain’t out here [Green Stone] doing nothing. They aren’t out here trying to learn nothing. If anything they are going to be trying to do graffiti.

Leigh: I don’t want to be no scientist, I don’t care about nature.

Brad: But there’s a certain quality of life that you can only attain from having widespread knowledge.

Leigh: And that's why I'm paying this damn school to teach me something I ain't interested in.

Brad believed that unless someone is exposed to various options, like science through general education course, one might never know what their interests are. Leigh disagreed by stating that it starts in the home, and if parents do not introduce their children to something, then when they grow-up, it is then their responsibility to explore the world on their own. Brad shared with Leigh that he is a Black male who grew up in North San Meadows and, based on statistics, he should be "gang-banging." He shared that he was removed from his home at a young age by social services because his parents were addicted to drugs. Brad states:

There is no way I would have been able to make it out to a national park such as this, without initiatives like [Professor Grey]... once you open a gateway, then you can explore. But when you are in a city your mind is locked, you are only trying to find food for the next day

Brad then tried to give Leigh two additional examples to further his point. The first example is of a female who is raised in a culture that teaches her to cover up and the second is around a cannibalistic tribe in South America who is raised with cannibalism as a norm. Leigh was quick to fire back that if the female was raised to cover up her body, that when she gets older she can venture out and figure out that she does not have to cover up. Then she quickly turned to his second example and said that if someone is born in the "crooked wilderness, that is where they are going to stay and they would be afraid to come into the city." Brad responded by saying "I am talking about universals. So regardless of where you're at, if you're in a culture and say this is a social norm, are you not still being oppressed? Do you not have that mental framework locked into your mind..."

At this moment during Brad and Leigh's conversation Diane spoke up on the topic of social norms. She shared that she grew up in Poland and is conservative in some ways, and that, even though she is in the United States, she still thinks her ways, meaning those she believed and practiced in Poland, should still applied. Leigh spoke up to both Diane and Brad reminding them that it all begins in the home, and whether or not your parents afford you the opportunity to learn about a variety of topics, once you become of age, it is then your own responsibility to decide what you want to make of your life.

Brad: However, if we are born with parents that are less than ideal, what avenue of escape, to find your interest, do you have other than a college, that will expose you to other things?

Leigh: And school don't make you who you are

Brad: I know but it gives you the opportunity to venture...

Leigh: It will just open you up to the knowledge...

Brad: That is exactly what I am saying

Leigh: That's it. That's all. I'm not into science!

As Brad and Leigh continue their conversation about Leigh's family, the group makes it back to the trailhead where Professor Grey is waiting with the rest of the class.

Post-Fieldtrip #2 Meetings

Each of the participants from the second fieldtrip was asked to share their experience with their peers on the Monday and Tuesday when they returned to the classroom. The first group to share their experience of the Magma Thrust hike consisted of six women and one man. One of their classmates asked if there were any misadventures, and one of the females spoke up about her group getting lost before making it to the trailhead. When additionally asked by a

classmate if they saw anything cool, one of the females responded with “I saw a rabbit.” The same classmate asked each of them to name one thing that impressed them the most. A Black female responded with “It was not as bad as I thought, I would do it again. Just not by myself.” The next female, Tiffany (pseudonym, who we will talk to more in FT#4), stated that it was the rabbit that they saw. Tara (pseudonym, who we will talk to more in FT#3), said it was the “trees, the landscape, the greenery, it was really pretty. The trees were really beautiful.” Another female stated that it was cool to learn about the geography of the rocks. Tara added her appreciation for Professor Grey because of the time and organization he put into the trip. Another female spoke up saying that Professor Grey was so calm and collected, even when part of the class got lost, he kept his cool. Lastly a classmate asked if they would do it again, and all of them said they would.

The second group to share their experience had two females and two males. This group included Thomas and Leigh who spoke the most while sharing their experience with their peers. Both Thomas and Leigh shared right off the bat that it was fun. Their classmates did not really begin asking too many questions, so Thomas shared that a group got lost, then shared that the professor gave a quick lesson on why people come from all over the world to see this location, then wrapped up by saying then they hiked back and it was easy. Their classmates then began asking question such as whether it was challenging, if they had to bring a backpack with snacks, and what kind of shoes they wore. Leigh stated that she wore tennis shoes, and additionally shared with the class that Diane had worn boots on the hike, and Thomas exclaimed that he saw that too and that the boots had heels, but that she made it.

The third group to share included one male and four females. This group included Drake, Betty, Samantha, and one of the females I rode in the car with to the trailhead. The first thing they shared with the class was that they got lost. They followed up by stating that it was not the

professor's fault, and rather blamed one of their classmates for getting them in trouble with the park rangers. Samantha spoke up and said that it was an easy trail, but that her favorite parts were being in nature and learning things about the environment. Betty and Drake added that it was a short hike and that they returned earlier than expected. One of the females shared how Samantha explored the area once they got to the turnaround point, to the extent that she scared the professor because she was so close to the edge of the cliff. Samantha shared that she was excited to get out of the city, while her female classmate commented on how pretty the view of the cityscape was. The five of them asked their classmates if they had any questions, and no one spoke up, so they ended their recap.

The fourth group to discuss their experience on the hike had three males and three females, one of which was Diane. One of the males began the conversation, by giving an overview of the entire trip. They started with the story about getting lost before meeting the group at the Visitor Center. Then they further elaborated on getting lost again while on the trail. The group united to blame the park ranger for the group getting lost. The class asked a lot of questions about why there was so much confusion. All five of the participants spoke up to give their perspective of getting lost, some were in the group that got lost and some were in the group that was looking. The topic then moved on to the trail, overall stating that it was fun. Diane spoke up and said it was difficult because she was overweight and the professor walked really fast so it was hard for her to keep up. A few of the participants shared that Samantha was climbing to the edge of the cliffs and top of the hills and how it concerned everyone. Overall they shared that it was great for pictures and no one fell. Diane ended the discussion by saying "it was probably the hardest extra credit I have ever earned."

The final group to share had five females. Similar to the other four groups, they began by stating that a lot of things went wrong. They blamed their classmates for the errors. The first female stated that she complained the entire time, and stated “I hike a lot but like for some reason I just wanted to kill myself.” She followed this comment with “when we finally got to the end of it, it was so beautiful.” She described the cliff and the dry waterfall, and overall she had a lot of fun and enjoyed herself. The next female to speak shared what they learned about the unique geography of the hike, adding that it was really beautiful. The third female knew that it was supposed to be a mile long, but she kept questioning the distance, as she said that she and her sister had hiked steep trails in Green Stone before, but this trail seemed longer to her. Overall, she said it was really beautiful and that she had fun. The next female commented on how early they had to wake up to get there, but since the whole group had to wake up early, it made it easier. She described to her classmates how they arrived at the park before the sun came up and confirmed the professor’s earlier claim that when you are up that high, the colors are brighter. She described the clarity of stars and how it was very different from the visibility you have in the city. She said it was a great hike and a great view, and she was happy she was able to go. The last female to share had a strong Asian accent, and shared that it “was very good, good day for hiking; it was clear, dry and sunny.” They only had one question from their peers which was, “So with all the chaos do you think you would go again?” All five responded “yes.”

Summary of Fieldtrip #2

The second fieldtrip included a pre-trip meeting, a 2.2 mile hike, and those that participated in the fieldtrip sharing their experience with their peers. On the second fieldtrip interviews were conducted with and experiences were shared by and between Tanya, Leigh, Brad, Diane, Drake, Thomas, Betty, Debora, Tiffany, Tara, and Samantha. Throughout these

three events, themes that emerged were the beauty of nature and wildlife and that, after their initial exposure to nature, participants were more likely to return to that area or try other outdoor activities. These findings mimicked the findings associated with direct/life experiences and sense of place with nature which are believed to be influential in connecting one to nature (Halpenny, 2010; Kaltenborn, 1998; Kudryavtsev et al., 2012; Payton, et al., 2005; Rioux, 2011; Ryan, 2005; Stedman, 2002; Vaske & Kobrin, 2001; Vorkinn & Riese, 2001; Walker & Chapman, 2003). The participants shared their appreciation of Professor Grey for organizing the fieldtrip, providing them a safe experience, and for staying calm during all of the chaos that occurred during this fieldtrip. These findings are similar to the findings from other studies that the benefits of outdoor education include access to role models (Barton, 1998; Barton & Yang, 2000), career or job development (Taylor, 2014a), community learning/ informal learning, and community engagement/stewardship opportunities (Hofstein & Rosenfeld, 1996). Equipment was an additional theme, in terms of the items brought and clothing worn on this fieldtrip. Most of the conversation about equipment had a negative tenor, specifically that participants did not have or bring the ‘right stuff.’ Lack of discretionary funds is one of the major deterrents to outdoor recreation, along with inadequate information about recreation opportunities. Other restraints that were described by participants were being out of shape, lack of interest in hiking and the outdoors, and apathy about nature, all of which are consistent with previous findings on deterrents to outdoor recreation (Burns et al., 2008; Floyd, 1999; Johnson et al., 1997; Sasidharan & Godbey, 2005; Scott & Muson, 1994).

Fieldtrip #3

The third fieldtrip was a full moon hike on a trail that was adjacent to Green Stone National Conservation Area called Dinosaur Mountain. This fieldtrip provided two possible

experiences for the participants. The first was the required hike to a designated turnaround point which was about three miles roundtrip, and the second part was an extended hike, an additional four miles, resulting in seven miles roundtrip. The full moon hike began around 8:00 pm, when it was full dark. Because of the mountainous terrain, the city lights were blocked from illuminating the sky and moon had not yet risen above the hills, so the trail was dark. Professor Grey encouraged his students to not use their flashlights or headlamps so their eyes would adjust to the available light. If they turned on their lights, it would also hinder others' night vision.

The hike was cold and windy. The first part of the hike was on a trail where participants walked in a single file line. Most of the hike to the first turnaround point was in the dark, as the moon did not come out till just before the group arrived there. After the first group decided to go back, the extended hike left the trail and circumnavigated the hills and ravines to make it to a lookout point that gave a tremendous view of the city lights.

Pre-Fieldtrip #3 Meeting

During the pre-trip meeting Professor Grey explained to the group that there were two hikes, the regular hike and the extended hike. He wanted to ensure that carpool groups accommodated each person's desired hiking level. Similar to the first and second fieldtrip, Professor Grey did most of the talking during the meeting. Bill, from fieldtrip #1, came to Professor Grey during the pre-trip meeting and informed him that he had to work that day, and would not know if he would be able to get off from work on time until the day of the hike; he asked permission to participate anyway. Students asked about the anticipated temperature, if they could bring someone who was not in the class, how much water they should bring, if they were going to get lost, if they would get extra points if they go on the extended hike, and if they could bring a camera.

Fieldtrip #3

The hike was held on Thursday, October 23, 2015 and began around 8:00 pm. This hike had about 45 participants. The beginning of the hike was quiet amongst the participants. Because of the wind, many of the participants had their heads and faces covered up. Additionally, due to the nature of the trail, most hiked in a single file line. These circumstances also made it difficult to initiate conversations and, when I did, the audio recordings were almost unintelligible. This made transcribing the conversation really challenging, therefore, I had to rely on my field notes to fill in the gaps of the recordings. I stayed in the back of the group and initiated the first interview with Kitty (pseudonym), a young Black female. Kitty asked me about my study and its progress. She told me that this semester she was taking five classes and had a full time job. Even so, she said when she finished her associate's degree she was thinking of going into the College of Education at the University of Nevada, San Meadows. Kitty had enrolled in Professor Grey's course for general education credits, but had not anticipated it being so difficult. Kitty had been hiking before, but never on this trail. When I asked her why she had not spent more time outside she said that she does not really like the elements, such as bugs and heat, but preferred air conditioning. However, as she reflected on her experience she stated, "Now that I am out here, I like it."

The second interview was with Matt, a young Ethiopian man who was introduced in Fieldtrip #1. During the recap of the first fieldtrip Matt had noted that this was the first time his learning experience in the United States mimicked what he had experienced while in Ethiopia. Matt shared that he is a writer. He described several books that he had written about the politics and control of the government in Ethiopia. He utilized the help of the United Nations to gain entry into the United States about six years ago. He planned to stay in the United States, and was

writing another book about his experience in the United States. I asked him to talk more about what he had shared during the recap of the first fieldtrip. He talked about community learning, and social differences, and individuality. He emphasized that everyone helps each other, and learns from each other. He reiterates that the fieldtrip to Mt. Chester was the first time that he had experienced that kind of learning in the United States. I asked him if he participated in outdoor sports when he was back home, and he said that he did and he really enjoyed it, and now that he was in the U.S. he still enjoyed spending time outside.

The entire group made it to the first turn-around point and Professor Grey gave some instructions to the students who were returning to the trailhead, and then set off with the rest of the group on the extended hike. There were about 25 students who participated in the extended hike. Once the extended hike started the group that I was hiking with were not interested in general conversation or answering questions, but were rather concerned with not getting lost and keeping up with Professor Grey. The demeanor of our group, which included Kitty and Tara, began with an adventurous spirit then diminished to one of fear. Several of the group members expressed frustration at not being better informed of what they were getting themselves into and concern about wild animals and their ability to continue on the trail due to fatigue. However, they did not think they had much of a choice as they were not sure how to get back to the cars. This concern grew as the hike progressed and Professor Grey, who had a very fast hiking pace, moved quickly out of sight of those of us in the back of the group. Also due to the terrain and night sky, when you looked out in front of you, you were not sure if you were looking at a Joshua tree or a person. We hiked for another two miles up and down different terrain, till we reached the turn-around point, which offered a view of the entire city.

Once we turned around and began the four-mile hike back to the cars, the third interview was with Tara, who was introduced in the recap of Fieldtrip #2. Tara, was a White female in her late thirties. The full moon illuminated the hillside; however, because the moon was now behind us, our shadows blocked being able to see where we were going very clearly. We were hiking in the Mohave Desert, and the terrain is filled with various cacti. Because the extended hike did not follow a trail, numerous participants accidentally kicked or stepped on cactus, which penetrated their shoes straight into their foot. Tara and I both experienced this unfortunate situation, causing us to stop a few times to pull out the needles, and separating us further from the group. Tara seemed very uncomfortable with making decisions on where to step, and would get concerned when there was a small rock scramble. It was evident that she was tired.

By this time it was about midnight, and the participants were getting tired. Professor Grey located the trail, and began the last mile and a half back to the trailhead. Once again, I was hiking next to Kitty and Tara, and Kitty was very expressive about how displeased she was with this experience. She felt that Professor Grey had not acknowledged her needs, as she was in the back of the group. She was frustrated that the group was ahead of her, and that by the time she caught up the group would leave again, not allowing her any time to rest. With about a half mile left on the trail, Tara was in the middle of the group and tripped on a rock and fell forward with her face striking a rock. The ridge of her nose split open and there was a rush of blood down her face. Her classmates were not sure what to do, and did not make it very clear that something had happened, but rather just stood around and looked at her. Tara also did not know what to do, and was scared. I, along with an off-duty paramedic, and Professor Grey attended to her, stopped the bleeding, and she felt well enough to hike the rest of the trail.

Post-Fieldtrip #3 Meetings

The first group to share their experience of the Full Moon hike had two males and three females, for a total of five of the group members. Tara was in this group, and with two black eyes from her fall, one of the classmates candidly asked if anything eventful happened on the trail. She attributed her fall to “being a klutz.” Bill was also part of this group, and he shared the timeline and distance, of the trip, describing that he did not get back to his car till after 1:00 am.

A classmate asked if there had been a full moon, how bright it had been, and also asked if they had seen any night animals. The group talked about the intensity of the moon’s light and how it illuminated the trail, and additionally shared with the class the quantity of the cactus that had been on the path. All four members said they would do it again. One of the females said that her most memorable moment was the moon itself. Bill shared that he loved that he got to run around the mountain in the dark and also enjoyed making it to the overlook point. Tara shared that that her favorite part was the moon and seeing the constellations that Brad pointed out. The last question from the class was about the temperature and all of the participants agreed that they had been cold and did not like the wind.

The second group to discuss the third fieldtrip had five participants, three females and two males. The first question that was asked was “Who got hurt?” They explained that a classmate fell. They sort of defended her by describing the trail was difficult due to the sand and rocks that made it difficult walk and added that a lot of people had slipped. The next question from the class was, “Was it windy?” and all four of them unanimously responded “yes.” A Black female reported that this had been her first time hiking and that she did not know what to expect. She reported, “It changes your perspective of hiking in general. I thought hiking was just walking on a flat trail... it was pretty pretty pretty. It was interesting. I liked it.” A White male

then reported that he had found the first part of the hike to be “really boring”, because we were just on a trail in the dark, however he found the extended hike to be really fun and thought the view was gorgeous. They discussed the cactus and how he hurt himself by stepping on one. He and another female then tried to describe the shadows when the moon was behind them. Overall he said it was a fun hike, and that he loved being in the desert at night. He recommended it to his classmates.

A classmate asked if they had seen any animals and the two females said they had been afraid of running into animals while on the trail. They also shared that the professor was fun to hike with, and that he would share bits and pieces of information that helped them further appreciate the area. They all agreed that the professor had been motivating and excelled on the trail. They wrapped up by adding that they had become somewhat lost, but made their way back to the cars.

The third group had eight participants, two males and five females. This group included Drake and Betty. One of the women took the lead and provided the class an overview of their experience. They talked about the cacti and the cold, and everyone spoke up to share their own experience with one or the other, or both. She then wrapped up by sharing that she got home at 2:30 am. Another woman talked about the view from the overlook and said that it was beautiful. A male spoke up to only share that it was rocky, and he had not liked “rolling his ankles.” One of the females offered that she had been really worried about rattlesnakes and scorpions. The entire group agreed that the view was beautiful. One of the classmates asked if they had seen any snakes, and the group answered “no.” Some said that they had wanted to see some animals, but just not next to them.

The fourth group to share their experience had eleven people, four males and seven females. This group included Sarah from the first fieldtrip, Christina (pseudonym), Henry (pseudonym), and Laura (pseudonym); the latter three will be introduced in presenting data from the fourth fieldtrip. One woman began the overall explanation of the experience, then there was some banter among group members about flashlight use, the cold, how the trip was a bit unorganized, who participated in the extended hike, who got lost, and how one of the participants fell and hurt herself. Sarah had not participated in the actual hike, because Professor Grey had asked her to be a shuttle driver for the other students instead. She expressed that she had really wanted to hike, but observed, “It takes a village, and that was what was needed... so it was not as I had expected.” The group began to talk about the extended hike, and one of the females said “he [Professor Grey] had no compassion for us.” All who participated in the extended hike discussed Professor Grey’s quick pace, how everyone tried to keep up with him, and how they were cold and out of breath when they made it to the top. All agreed the view at the top had been beautiful.

The last group had eight participants, three males and five females. This group included Matt and Nick (pseudonym; he will be introduced in the fourth fieldtrip). One of the females began by describing the trip and gave a general overview the entire trip. She said that overall she had fun and that it was worth it. The next woman, who had a strong Asian accent, described the extended hike as the most difficult hike she had ever been on because it was steep. She said it had been cold and windy, but the view at the end had been very beautiful. The next speaker was Nick, who reiterated what the two women had already said. He believed that the regular hike had been easy enough for just about anyone to complete. He shared how he had been surprised by Professor’s Grey’s pace. He stated that he had been really cold, and even though the extra credit

was great he had appreciated the experience. Nick went on, “I think he [Professor Grey] does the extra credit to get people out to experience these kinds of things, which most people wouldn’t. I enjoyed it and would definitely go again.” The next female to speak agreed with the previous speakers, highlighting the cold and the view at the end. She wanted to make sure that the class knew how much she appreciated the effort Professor Grey had put into organizing the trip, and what a good person he is for dedicating so much of his time to creating a safe experience for all of his students. She too highlighted that someone had fallen on the trail, and how he had taken care of her and brought her to the front of the group to ensure she was ok. She ended by saying that it was definitely worth it and that she had fun. The next speaker was a female who reinforced what everyone else had said, and added that she had fun. She was followed by a male, who agreed with all the previous comments except that he had hiked in a t-shirt and shorts and had not thought it was too cold. The next speaker was Matt, who said this was one of his favorite hike as it had also reminded him of his home. He indicated that the interaction with his peers had been the best part of the hike.

The final speaker from this group was a female, who had not gone on the extended hike. She supported Matt’s comments, and said she never would have thought to do a night hike, because it seemed dangerous and she feared she might hurt herself. Her experience, however, had been just the opposite because everyone was there to help each other. She explained to the class that she and her friend had led the group back down to the trailhead, even though they had not known where they were going and got a bit lost on the trail. She supported everyone’s appreciation for Professor Grey and his constant support while on the trail. She stated that she would never have done this on her own, and that she appreciated that he constantly pushed them to participate in these fieldtrips, because it had been a really good experience. Tanya, from

fieldtrip #2, asked about the scariest part of being out there at night. The group responded with the cliff at the end of the extended hike and the cactus, and Nick specifically said he had been afraid that he was going to put his hand down on a rock and there would be a scorpion.

Summary of Fieldtrip #3

A summary of the third fieldtrip included conversations during the pre-trip meeting, interviews with Kitty, Matt, and Tara while on the hike, and the shared experience of 37 participants after the fieldtrip. Of the four fieldtrips this one proved to be the most difficult for interviewing participants on the trail and, of those who were interviewed, it proved to be the most difficult to transcribe because of the wind interference and trail noise on the audio recordings.

Four themes dominated the general experience of the fieldtrip: the positive experience of peer support on the hike; gratitude to Professor Grey for providing his students this experience; fear of the unknown, outdoors, and animals; and the beauty of nature. Similar to the first and second fieldtrips, as well as previous research on outdoor recreation, fear has been a consistent message reported by the participants (Burns et al., 2008). However, during this fieldtrip, many of the participants expressed that they would have never done this kind of hiking—specifically hiking at night, on their own--and had not been sure what to expect. Participants expressed their fear of trying something new, as well as acknowledged a deficit in prior opportunities and experiences provided to them. These themes support the literature on limited access to recreation spaces and experiences for non-dominant populations (Abercrombie et al., 2008; Byrne, 2012; Floyd & Johnson, 2002). Additionally limiting learning opportunities for direct/life experiences with nature (Abercrombie et al., 2008; Floyd et al., 1993; Jack, 2010). All of the participants who expressed a component of fear in association with the hike, concluded with a positive take-away.

However, unlike the other hikes, there was not a strong reiteration of statements such as “I would go back,” or “I would do it again;” however, everyone reported a positive experience.

Fieldtrip #4

The fourth and final fieldtrip took place in Vision National Park, located about 160 miles from San Meadows, in southern Utah. This fieldtrip was different than the other three fieldtrips, as this trip included hiking and camping. Students were asked to meet at Vision’s Visitor Center at 7:15 am. This meant that students needed to leave their home around 4:00 am to meet their carpools and to arrive at the Visitor Center on time. Once students arrived at the Visitor Center, the first part of the fieldtrip was a 5.4-mile roundtrip hike on the Trail to Heaven, a trail that is categorized as “strenuous” by park officials. The first two miles of the hike are paved switchbacks as you gain elevation. Once you get to the two-mile point, this trail is also called “Saddle Trail;” at this point the trail turns into more of a hike along the spine of the mountain. There are chains affixed to the mountains edge to assist hikers on the last half mile to the peak. After the hike, students are given campground assignments by Professor Grey, and were instructed to go and set up their tents and start preparing their dinner. Students were required to camp in the campground, and needed to check in with Professor Grey at 8:00 am Saturday morning before they began their drive back to San Meadows.

Pre-Fieldtrip Meeting #4

Professor Grey started the pre-trip meeting by organizing the students into carpools. Similar to other fieldtrips, he encouraged his students to form a group and get to know someone. While the carpool groups were forming, participants also began to discuss what gear and equipment each person would bring, either for the group or individually. Some of the questions asked were from females such as “Are their restrooms with running water,” “Can you rent it

[equipment],” “Will we be going hiking at night?” and “How many bundles of firewood should I bring?” During Professor Grey’s overview, he asked Jasmine to put her phone away or to leave. She responded that she was putting notes in her phone, and he asked her to write them on paper. Lastly, he reviewed with the class the importance of being respectful of other campers and hikers, as they are representatives of their school.

Fieldtrip #4

On the morning of Friday November 13, 2015, students arrived at the Visitor Center, of Vision National Park. Professor Grey asked the students to walk out to the parking to continue the briefing. It was about 42 degrees outside, Professor Grey gave his students some directions and ask them to consolidate the number of vehicles, as the professor was concerned that there would not be enough parking at the trailhead. Although at the pre-trip meeting Professor Grey had spent a time organizing students into carpools, several students had driven individually either because they overslept and missed their carpool or wanted to have their own car. After students got into cars at the Visitor Center, they traveled further into the park to The Trail to Heaven trailhead. Upon arrival at the trailhead, vehicle thermometers read in the low 50’s; many students were cold and began to put on additional layers of clothing before starting the hike.

The professor ensured that all of the students had water, and the hike began. At the beginning of the trail, I started the first interview with Michael (pseudonym) and Tiffany (pseudonym). Both were originally from Ethiopia and, although Michael had been living in San Meadows for about 10 years, neither had been to Vision before nor had either of them been camping. I inquired about their plans for dinner, as students were supposed to bring food to prepare in the campground. They had not brought any food with them as they had planned to go to town to eat. I additionally asked about what equipment they had brought to camp, and they

had rented all of their equipment. Both had been encouraged to come on the hike to receive the extra credit being offered; this had also been their motivation for participating in Fieldtrip #2.

The second interview was with Nick, a White male who was in exceptional shape, said that he had been camping when he was in elementary school but not recently. When I asked why he had never been to Vision before, he said it was because he was from Southern California and had only been in San Meadows for about two years. We discussed a few of the other trails in Vision, which led me to ask him if he was “outdoorsy.” He responded by saying that he used to go for walks along the beach, but had not done anything like this. He had been to Mt. Chester a few times, but only done a few short hikes there. Lastly Nick shared that his father used to be a big mountaineer when he was younger, but had never been to Vision. I suggested that he could bring his dad and family back to Vision so he could show them around. We had only been hiking for 10 minutes, but some people had to take a break. At the trailhead, we had been in the shade, where it was relatively cold. The trail was now in the sun and students needed to layer down and adjust their equipment.

On the trail I met Drake and Betty from the first two fieldtrips, and we chatted more about the equipment they had purchased from the REI yard sale. Betty shared that, when she grew-up in California, her high school had started a camping club, where they traveled all over California and Arizona. She and Drake had come to Vision in March, but had only driven up for the day and had done a few small trails. She laughed because she had not been camping since 2005.

At our next break, I spoke with Bobby (pseudonym), a Black male who had also been on Fieldtrip #1 but had not made it to the two-mile mark. When I asked him which trip was better, he thought this trip had been better so far. Bobby had lived in San Meadows for ten years, but

had never been to Vision. When I asked him why he thinks he had never been before, he responded, “That I cannot answer. Not to say that I was not interested, now I am more interested since I took his [Professor Grey’s] class. But now I understand, the like beautiful things.”

As the group took breaks along the trail, a small group of girls began to cluster at the back of the group, Samantha from Fieldtrip #1 and 2, Jessica (pseudonym) who was a previous student of Professor Grey’s, and Laura (pseudonym). There were two factors that led to these females falling behind: the first was equipment and the second was being out of shape. As I stated previously, the temperatures had increased since the hike began, and now these three women had excess clothing layers they had taken off and were trying to carry up the trail. Laura had a small handbag and an oversized sweatshirt, and Samantha brought a crochet messenger bag and some mason jars for water. Jessica had a backpack with a bladder for water and a very large camera; however, she was wearing so many layers that she was overheating. The combination of equipment/gear problems, the poor physical condition of two of the women, and the fact that Samantha was sick caused the four of us to fall behind. I took this opportunity to learn more about each of these women.

Jessica and I discussed the fieldtrips she had gone on when she was previously a student of Professor Grey. She shared that she had been on an overnight camping trip to Death Valley National Park; however, that had been more of a car tour and not a lot of hiking. She expressed surprise at her poor performance because she often walks up to six miles at her work as a security guard for a casino. I asked Jessica what had brought her to San Meadows, and she shared that she and her girlfriend were homeless in Los Angeles when her girlfriend’s grandmother had invited both of them to come live with her. She had stayed in Las Vega because she has had a full time job ever since. Jessica had a very dry sense of humor. She kept the hike

light by making jokes about the distance, humorously asking if we were there yet on a continual basis. She had offered to help Samantha with her bottles of water and bag, and the two of them shared in carrying their bags and equipment. Jessica also had commented that she was not getting any extra credit for this hike, but was enjoying it anyway.

Samantha had just come to Vision for the first time in May when her friends brought her for her birthday. On this trip, she had not felt well but, because of her free spirit and positive attitude loved to take the trips with the other women so she could take pictures and enjoy the scenery. We talked a bit about her last visit to Vision, where she said that they had not really hiked, but played in the Virgin River. She shared that they had come in the gates but had just slept in the back of her friend's truck when a Park Ranger told them they could not camp there. She followed up by saying that the female Park Ranger had been really nice about it. She illuminated her stories of her previous trip with adjectives such as "magical," "amazing," and "beautiful." She asked me if I knew of another place in the world that was like Vision, and I told her I was not sure.

Lastly, there was Laura, a Latina female who had never been to Vision before. I asked her if she thought that she would ever come back. She responded that her sister wanted to come and had given Laura directions to remember everything. Laura did not think that anyone in her family had ever been to Vision, even though they had lived in San Meadows for about eight years. Laura stated that "we have to take advantage of things we have so close." I asked her if she had ever been to Green Stone or Mt. Chester and she said that she had not, but that her sister has gone to those places. I inquired why she had not gone with her sister, and she said it was because her sister usually went on the weekends, and that is when Laura works at a gelato shop in a casino. I strongly encouraged her to bring her family back so that she could be their tour

guide, and her response was “We’ll see. We’ll see how tonight goes.” I asked her about her equipment and she said that one of the girls she drove up with had brought a tent and that her boyfriend had a sleeping bag, so she just took his.

The trail was very busy. On our way up, because we were at the back of the group, other hikers on their way down had asked who we were, and what had brought us there. I took it upon myself to model courtesy to the hikers behind us, alerting them that there were close to 40 of us up ahead, and that they should feel free to pass when they were ready.

As the four of us progressed up the trail, Christina (pseudonym), April (pseudonym), and Kylie (pseudonym) joined us. Christina, a White female with two children, had pulled off the trail for a break. I had asked her if she had ever been to Vision before, and she had. She had come when she was in high school with her varsity cross-country team. She shared that when she was in high school she had participated in cross-country, track, dance, cheerleading, and soccer, and now she was a college cheerleader. I asked her if she had ever been camping and she responded that her husband was a big camper and liked to go to Mt. Chester and Razor’s Road in California to go dirt biking and four-wheeling. She reflected that she had not camped in a while, but remembered that they had taken her daughter on her first camping trip when she was one year-old, and Christina was pregnant with her second child.

April, a White female, and Kylie, a biracial female, were hiking together; April appeared to be the one promoting the breaks. Both girls were wearing hiking boots. Both stated that they hiked a lot, but Kylie had new boots, which she had purchased for a hiking trip to Colorado with her family. She said they were supposed to go on a beach vacation but that had not worked out, so they just had said, “let’s go hiking.” Kylie had been living in San Meadows for about two years and had been hiking in Green Stone, but not yet at Mt. Chester. She, too, had previously

been a student of Professor Grey and, like Jessica, had gone on the Death Valley trip last semester. April who was a current student of Professor Grey, was familiar with the trail, and had hiked it several times before. However, she stated that her heart was beating really fast and she needed to take a break. April was in a dual credit high school program and only had one more semester until she plans to move to a university, where she plans to major in geography with a minor in geology. I asked her what had inspired her to study geography, and she said her sister peaked her interest, but then taking Professor Grey's class had made her fall in love with it. April was aspiring to race her sister to getting an advanced degree, either a master's degree or Ph.D. She shared that she was planning on taking a lot of internships over her summer breaks rather than taking classes and planned to weave in hiking the trans-Catalina Trail and the John Muir Trail. She seemed to be fully aware of how rare it was to have a female in a geography program or, as she described it, a "woman in science," and boasted about having already communicated with the head of the geography department at her future university. She alluded to the possibility that her entire tuition could be paid for because of that fact. April concluded by stating "I love being outdoors. I can't wait to do this for the rest of my life."

As April had talked about her future, the seven of us had progressed up the sharp switchbacks on the trail to the saddle of the mountain, Saddle Trail. This is where the rest of the class was waiting for us. I made my way to Kitty from Fieldtrip #3, and complimented her on her success up this trail. For a few minutes we reminisced about our experience on fieldtrip #3, then she stated that she was surprised that the shuttle system was not running in Vision, and that she had thought it ran year round. I asked her if that meant that she had been to Vision before, and she stated that she had. Kitty thinks that Vision is really nice, but had no desire to continue up the rest of the trail.

From the saddle of the mountain, or Saddle Trail, the trail continued up a steep spine another half mile. About 10 of the 44 students had decided to stay at Saddle Trail, while the rest of the group pressed onward. Due to the nature of the trail you had to climb single file. Once again I found myself at the back of the group, where I hiked with Michael, Tiffany, and Bobby for the remainder of the trail. Bobby had been a bit uncertain if he wanted to progress, but decided that he would give it a try. Bobby was wearing some athletic shoes that had flat soles with little to no grip on the rock surfaces. On different portions of the hike, there was snow and ice. Michel and Tiffany had done well as they progressed up the trail, however seemed to be more interested in taking 'selfie's' and videos to document their trip rather than being aware of their surroundings, meaning other hikers, steep drop-offs, or that they were holding up the people behind us. As the group progressed further up half-mile trail, Drake, Betty, and Jessica had stopped and let the group pass them as they said they were afraid of heights and did not want to go any further. Almost three fourths of the way up the trail, Kristin (pseudonym) and Derek (pseudonym) had stopped at a small ledge indicating they did not want to go further. Because we were such a large group, other hikers had to wait for all 33 of us to maneuver along the trail before they could progress. Additionally, several hikers had piled up behind us. Along the trail, however, everyone had been courteous and helpful during portions of technical reaches or passes. Bobby, although he was timid on several of the chained areas, had still checked that I was OK and was able to make it to the next step.

Due to personal health issues, as soon as our group had made it to the top, I decided to turn around and began the return to Saddle Trail. Another student, who decided to not participate in this portion of the study, had accompanied me on my way down, and we picked up Kristen and Derek along the way. As we got close to Saddle Trail I chatted with Kristen, a young Latina

and Derek, a White male, both of whom had been to Vision before but usually went hiking together at Mt. Chester. They had most of their own camping gear, but did not have sleeping pads, so had just brought a lot of blankets instead. The four of us made it back to Saddle Trail where we waited for the rest of the group to descend.

When we began the descent back to the cars, Professor Grey had asked if I would bring up the back of the group and he began to make his way down the trail with the majority of the students. However, Samantha, Jessica, Jasmine (pseudonym) and another Latina female were still taking pictures. After alerting them that the group had left, Samantha and Jessica came and gathered their belongings; however, Jasmine and her friend decided that they needed to use the restroom. When they joined us, we began our descent down the trail. I found myself bothered by their interactions and behavior. I thought their actions were disrespectful to the group, as the group would have to wait for all of us to return to the bottom before anyone could leave. As we made our way back down the switchbacks the four girls, and now a male from our group who had forgotten his jacket and came back up to retrieve it, were being loud, swearing, and obstructing the trail for other hikers. I found myself not wanting to engage with them, or rather not to appear to be associated with them. I had originally agreed to bring up the back of the group so that I could continue to talk with the participants, however this was not what I had expected. Jasmine and her friend almost ran down the trail and re-joined the main group further down the trail; however, Samantha was in no rush at all and would ask Jessica to take her picture as she climbed into small caves along the trail. I found myself immensely bothered by their behavior, my perception of their disrespect for our group and for other hikers, and even felt I did not want to speak with them. I hiked in front of them while still making sure that I could still

hear them; I often had to wait for them to catch up. At one point, Jessica was trotting down the trail and twisted her ankle; however, she able to continue the hike.

When the three of us returned to the parking lot, Jasmine shouted “Did you leave them in the dust?” I apologized to Professor Grey, letting him know that I had tried to hurry them down the trail. From that point the groups were given campground assignments and the students migrated to the campground and began to set up their equipment for the overnight stay. I came to the students’ campground after everyone had already set up their tents and were in the early stages of getting their dinners prepared and campfires started. Some students were lying down inside their tents, others were socializing at the picnic tables, while others had gone into town to buy supplies they had forgotten.

I began to visit the different campsites. The first camp included three males, Nick, Henry, and another Latino male. The three of them had a rather small tent, which it appeared they would be sharing. When I asked them about what they would be cooking that evening for dinner, each of them fell into describing what they had brought. Nick, who was in exceptional shape, had pre-cooked and pre-portioned most of his food and only had to warm it up over the fire. Henry, however, needed to cook his food, and the third male, who had never camped before, had only brought a pre-made sandwich for dinner. The three did not appear to be that familiar with each other; that is, I did not think that they had been friends already or even associated before this trip. During their meal preparation they were very jovial and were offering to share their food with one another. The second camp I visited was the “women’s” tent site. They had pitched an eight-person tent, and about six women were standing around the picnic table. When I asked what was being prepared for dinner, Samantha shared that she had brought some veggie chicken patties, and Jasmine had brought some chili, rice and pasta. Jessica brought some monster marshmallows

for s'mores. The next camp had one male participant who was lingering around the campground while several of his peers were in their tent resting. Camp stops one, two and three seemed a bit forced in my conversations with the participants. They were all getting settled and not too interested in talking to me. The fourth camp I visited was with Drake and Betty. Betty asked me for advice on how to make a campfire, so that they could cook the soup she had prepared before traveling to Vision. She also asked my opinion on how long their fire bundle would last them. They shared that they were considering going into town to buy some kiwi's, as Betty was not feeling well. I laughed when they told me this, as I knew the grocery store in town would not have kiwi's. Betty had not been feeling well for several days leading up to the trip, however they had already invested time and money into this trip (e.g. camping equipment) and Betty exclaimed "we have to go." The last campsite I visited was where I met Bill from fieldtrip #1, and several other students who I not previously met. The Latina females in this camp were planning to prepare carne asada, chicken, and guacamole. Because I did not establish much comradery with this group, I only stayed for a few minutes and then departed back to my own campsite.

I had decided not to return to the students' campsite after dark when people had most likely already eaten. Based on my interactions with four of the five campsites, I did not believe my return would result in useful dialogue about sociopolitical influences or conservation norms. I also wanted to follow Professor Grey's stance of no longer being the instructor but rather a catalyst to provide his students with an opportunity to engage in the outdoors however it suited them.

Post-Fieldtrip #4 Meetings

Students shared their experience with their peers on the Monday and Tuesday that they returned to class. In the first group to share, there were eight participants, four males and four females. That group included Bill, Tiffany, and Jasmine. When one of their classmates asked how many of the eight had been camping before, three raised their hands. The eight students shared their experience highlighting how hard the switchbacks on the trail had been, how cold the weather was, and, for one of the females, how scared she had felt. A Black female said she had overslept, failed to meet her carpool to Vision and therefore had to drive herself to the park. She stated that it was the furthest she had ever driven by herself in her entire life, stating that she was scared half to death. She also said she had slept in her car. Bill shared with the class his surprise at how close the town was to the park, so if they forgot something they could just drive five minutes and grab something they needed. Overall, all eight of them expressed how positive the trip was and all of them said they would go back. Some of the highlights of the trip were seeing deer, the night sky, and shooting stars. Jasmine shared “I loved my group. Yeah, we had a great time. I had never met any of them before Great time.”

The second group only had two participants, Kitty and a male. Kitty, who had been unable to stay the night with her classmates, shared her perceptions of how beautiful the park was, and recommended that everyone go to Vision National Park and go on a hike with Professor Grey because he would push you beyond your comfort zone. The male participant tried his best to explain to the class the switchbacks on the trail up to Saddle Trail; he was prompted to pull out his phone and put it under the camera projector so his classmates could get a better idea. Kitty had not gone past Scout’s Peak, so her peer explained to the class how narrow the path was but how beautiful the view was from the top. He shared his camping experience, which included

having to wear two pair of pants, two jackets, and a blanket but was still not able to get warm. He additionally shared that, after dinner, almost everyone in the campground had gotten drunk. Because it was so cold and windy, many people could not sleep; however, Professor Grey had instructed them that they could not leave the campground till a certain time in order to not disturb the other campers. He also stated that he woke up because he thought a mouse had eaten through his tent in the middle of the night to eat an apple core he had left out, but then he realized that he must have been dreaming. He said that another group had sworn that a small bear was running around the campground at night, but he thought it was just someone snoring. He discussed how there were deer everywhere and they should have just killed one of them, but Kitty interrupted and told him that the deer were protected and government property and that he would have gone to jail. Kitty wrapped up by saying that she felt a sense of accomplishment for going on the trail and that overall the trip was worth it, really fun, the views were beautiful, and that she planned to go back to Vision but was not sure she would do that hike again. Her counterpart also stated that he would return to Vision.

In the third group 10 students shared their experience. This group of three males and seven females included Drake, Betty, Bobby, Samantha, Kylie, and April. The group began with individual explanations of their experience. Drake went first and highlighted that it had been a great experience, that it was his first time camping, it felt both challenging and dangerous, and the views and trees were beautiful. The female who went next had also gone on fieldtrips #2 and #3; she stated that she had a blast, discussing the vibrant colors of the trees, how the hike was hard and challenging, but when she got to the top she said “I do not think I’ve ever seen anything as pretty as the view we had.” April was the next to speak, and shared with the class that she had been to Vision before and had been on that hike, but that when she had gone before it was too

busy to make that final ascent past Scout's Peak. April stated that it was definitely worthwhile and there was really nothing like it. Betty was next to share her experience. She disclosed that she had been really sick and, although she wanted to continue to the final peak, having Kleenex in her hand and holding on to the chains while looking down thousand foot cliffs scared her and she turned back. She shared that, while camping that night, they had met some people and that was cool. The fifth person to speak was a female who described the beauty of just driving around the park because of the water everywhere. She said that it was just pretty everywhere and that she enjoyed the hike, too, as she had done it before. Samantha spoke next, and she shared:

Being able to get away from the city and be surrounded by that and then also being able to connect with like students from other classes and then also the ones that are in our class and so it's like crazy. It totally charges you up to like be in that environment and like get away from the city.

The rest of the recap involved participants' sharing bits and pieces of their experience. Drake revisited his comments about the trees, stating that we do not get to see them in San Meadows and how most of them had never seen so many different colors. The group also revisited Betty's comment about getting to know other classmates and people from other classes.

The fourth group of four students, three girls and one male had Christina, Kristin, and Derek. Derek did most of the talking and gave a brief synopsis of the entire trip; the three women contributed a few things to his narrative. The main highlights were the temperature, animals (deer and chipmunks), the buffet at dinner with everyone moving between the campsites trying food, and the wind at night. Overall their description lacked enthusiasm; however, everyone said they would go again.

The last and final group to share their experience with their peers had seven participants. There were four males, two of whom were Nick and Matt, and three females. Similar to group three, each person spoke individually sharing their own experience. The first woman to speak began by saying it was the hardest thing she had ever done, but it was rewarding when she got to the top. She described how she counted the switchbacks on the trail and how Professor Grey promised her that there were only 10; however, she counted 34. She stated that once you get to the top it was the “most beautiful view, indescribable, it’s awesome.” She found camping to be fun, but was concerned she was going to wake up with frostbite. Overall she said it was fun and she was glad she went. The second and third group members were male, both of whom participated in Fieldtrip #1 to Mt. Chester. Both compared this fieldtrip to their experience on the Mt. Chester hike. The first male student stated that this one was easier, because the trail was paved. He also expressed that this was his first time camping he liked it because he got to meet new people and had the opportunity to interact with his classmates. The third speaker also thought this hike was easier than the Mt. Chester hike. He liked being able to hold on to the chains during the hike because it was really intense to be on the very edge of the cliff. He also really enjoyed camping. Similar to some of his peers, he had enjoyed the comradery and interactions around the campfires. The fourth speaker was a female, who declared that it was really rough for her because she was not used to exercising, and she doesn’t really hike. She stated that the camping part had been the toughest because she hated camping and because of the wind. She did, however, agree with her peers that everyone interacting around the campfire at night had been pretty awesome. She concluded by stating “It was an experience that I would definitely do again.” Nick was the next to speak and he reported that, overall, it was a great experience, and further told his classmates that if they did not go on the trip that they definitely

missed out. He described how he would like to show pictures of what they saw and experienced, but knew that the photos would not do the scenery justice. He described how, when he walked out of the Visitor Center, there were deer practically standing right next to him, and they did not seem bothered by his proximity. Instead he found himself concerned that they were so close and went back inside. Nick reported that he would definitely go back with friends and family, but really thought the experience with such a large group had made this trip memorable. In his description of the hike, he thought the chains on the trail were exciting, but felt bad for the other hikers on the trail as they had to wait a really long time for Dr. Grey's group to pass them before they could progress. He described how crowded it was with three men being in a four-person tent, and his poor choice of a sleeping bag that did not zip up around his shoulders.

The next speaker was a female, who said it was a really good experience; however, she had only been camping once before in her life and thought she would never go again. The nature of the group and the group size, as well as having people who actually knew how to camp, however, made it a lot of fun. She stated that she only knew one girl in her carpool, but now all of them were "BFF's." She described how her friend had encouraged her to climb to the top even though she was afraid of heights, and how she felt rewarded by the view when she reached the end of the trail. She had been nervous through the night because she was afraid that something was going to eat her. She concluded by saying that if any of her classmates ever went to Vision, they should go on this trail.

The last person to speak stated that it was a really good trip and he had been surprised by how busy the trail was, comparing it to a San Meadows street. He, too, referenced the enjoyment of having been part of a large group and visiting around the campfires at night. He found Vision to be a beautiful location and said that he already missed it.

Summary of Fieldtrip #4

On the fourth and final fieldtrip, themes emerged from pre-fieldtrip meetings, on the two-day fieldtrip, and during the post-fieldtrip meeting recaps. On this fieldtrip fourteen participants were interviewed: Michael, Tiffany, Nick, Bobby, Samantha, Jessica, Laura, Christina, April, Kylie, Kristin, Derek, Jasmine, and Henry. In total 35 participants participated in the pre-fieldtrip meeting, 44 on the fieldtrip itself, and 31 participated in the post-fieldtrip meeting recaps. There appeared to be an equal split between participants who were new to outdoor recreation and participants who were experienced and/or had already been to Vision. This divide was different from previous fieldtrips, where most of the participants interviewed were inexperienced. Many who were inexperienced explained that they did not know about Vision National Park or that it was too far from their home, which matches previous constraints to outdoor participation (Burns et al., 2008; Johnson et al., 1998; Tierney et al., 1998). The major theme that emerged from this fieldtrip experience was found in the post-fieldtrip meetings, where participants frequently shared their enjoyment of the group dynamic-- getting to know their peers, encouraging each other up the trail, as well as socializing around the campfires at night. Similar to other fieldtrips discussions about family, fears, nature, and a desire to return were also prominent themes which mimicked previous research about outdoor recreation usage and the development of connectivity to nature through experiences (Burns et al., 2008; Carr & Williams, 1993; Shores et al., 2007).

Second Survey

The second survey was opened on November 29, 2015 and closed on December 10, 2015. There were 81 participants, however one of the participants identified as under 18, therefore this set of responses was removed. Based on the population of 216 participants to

whom this survey was made available, this is a 37 percent participation rate. Sixty-two of the 80 second survey participants completed both the first and second survey.

Of the 80 respondents, 35 percent (n=28) were male while 65 percent (n=52) were female; 73 percent of the participants fell between the ages of 18 and 24, and 90 percent identified as “high school graduate” or having completed “some college.” When participants were asked their ethnicity and to mark all that apply, 99 responses were given, with 15 of the participants self-identifying as multiple ethnicities (See Table 7 and 13). Two participants marked “other” with written responses; one was “Pacific Islander,” and the other wrote “my mother is Cuban and my father a white mutt ;) lol.” These participants had also marked the boxes that coincided with their written responses. One question was added to the second survey that was not in the first survey; this question asked the participants if they had participated in any of Professor Grey’s fieldtrips during the semester. Of the 80 participants, 59 percent (n=47) stated that they had participated, while 41 percent (n=33) had not.

Table 7

Ethnicity of Sample Population for Second Survey

Category	# of Responses	Identified as more than one Ethnicity			
		Two		Three	
		Black	Latino	East Asian Pacific Islander/ Native American	
White, White American, Caucasian, European, European American	37	3	5		2
Black, Black American, African American, African, Afro-Caribbean	15				
Latina/ Latino, Latina/Latino American, Latin American, Hispanic, Hispanic American	26	1			
East Asian, Asian, Asian American	6		1		
South Asian, Indian American, Asian, Asian American	3			1	
Middle Eastern, Arab, Arab American	1		1		
Pacific Island, Indigenous, Indigenous American, Asian, Asian American	7		1		
Native American, Alaskan Native, Indigenous American, Hawaiian, Hawaiian American	2				
Total	99*	4	8	1	2

**two participants marked other*

With a better understanding of the participants' demographics, a Kruskal-Wallis H test was calculated using each of the four demographic questions' responses as the independent variable and the other 29 questions' responses as the dependent variables. Findings were significant for gender, age, and ethnicity, and therefore will be reported in the next section.

Responses to four questions differed significantly based on gender (See Table 8). Women were significantly more likely to report that they are environmentally sensitive, believe that through their own actions, as well as working with others, could influence the improvement of environmental issues. And when asked to rate the relative influence of who taught them about enjoying the outdoors, school was identified as significantly more influential on males than it was on females.

Table 8

Significant Differences on Second Survey Questions Based on Gender

Question	Means Rank		Chi-Square	df	Asymp. Sig.
	Males (n=28)	Females (n=52)			
Rate the relative influence of those that taught you about enjoying the outdoors. School	48.05	36.43	4.802	1	0.028
I am environmentally sensitive.	32.64	44.73	5.499	1	0.019
I believe my own actions can influence the improvement of an environmental issue.	32.84	44.63	5.159	1	0.023
I believe that by engaging in actions with others I can influence the improvement of environmental issues.	31.63	45.28	7.007	1	0.008
***Rate the relative influence of those that taught you about enjoying the outdoors. Alone (Group)	46.68	37.17	3.627	1	0.057
***I am interested in and/or love nature.	34.14	43.92	3.590	1	0.058

Responses to six questions differed significantly based on age (See Table 9). As described in the first survey findings, I assigned participants into three age groups: 18-19 (n=24), 20-24 (n=34), and 25 years or older (n=22). Participants ages 25 and older reported significant differences in the time spent participating in outdoor activities in their youth (prior to age 18) and taking part in environmental actions to resolve environmental problems. Additionally, participants who were 25 or older identified work as who they spent time with when enjoying the outdoors. The last question on the survey asked participants to rank the areas in their life they feel the most concerned about there were significant findings in each of the three age groups. Similar to the results from the first survey, participants between the ages of 18-19 were more concerned about their health, while participants ages 20-24, identified the environment as an area of concern, and lastly participants ages 25 and above identified school as an area of concern.

Table 9

Significant Differences on Second Survey Questions Based on Age

Question	Means Rank			Chi-Square	df	Asymp . Sig.
	18- 19 (n=24)	20-24 (n=34)	25 & above (n=22)			
Who do you usually spend time with when you are outdoors? Work (Rank)	31.19	39.96	51.50	9.659	2	0.008
During my youth (prior to age 18), I participated in outdoor activities which took place in natural places.	31.40	41.65	48.66	7.001	2	0.030
I take part in environmental actions which include working directly with nature to help prevent or resolve environmental problems.	36.69	35.51	52.36	8.598	2	0.014
If you were to list the areas in your life that you feel the most concerned about, how would you rank them..... Health	50.65	39.90	30.36	9.249	2	0.010
If you were to list the areas in your life that you feel the most concerned about, how would you rank them..... School	30.73	41.18	50.11	8.243	2	0.016
If you were to list the areas in your life that you feel the most concerned about, how would you rank them..... Environment	43.98	45.29	29.30	7.374	2	0.025

The next test was run using ethnicity as the predictive variable. I mimicked the coding process that was done during the first survey, meaning, all participants that had marked “White, White American, Caucasian, European, European American” were placed into Group 1. Participants who identified as “White, White American, Caucasian, European, European American” and another ethnicity were placed in Group 2, and participants who did not identify as “White, White American, Caucasian, European, European American” were Group 3. Four questions were found to be significant (See Table 10). The results found that participants who identified as Group 2 were significantly more likely self-report as significantly more likely to participate in recreational activities, were more interested in and/or love of nature, believed more strongly that their own actions could influence the improvement of an environmental issue, and identify religion as an area of concern in their life.

Table 10

Significant Differences on Second Survey Questions Based on Ethnicity (Three groups)

Question	Means Rank			Chi-Square	df	Asymp. Sig.
	Group 1 (n=27)	Group 2 (n=10)	Group 3 (n=43)			
I take part in recreational activities	45.28	50.40	35.20	6.027	2	0.049
I am interested in and/or love nature	41.19	57.10	36.21	7.342	2	0.025
I believe my own actions can influence the improvement of an environmental issue	32.17	54.85	42.40	8.344	2	0.015
If you were to list the areas in your life that you feel the most concerned about, how would you rank them..... Religion	44.78	59.25	33.45	11.962	2	0.003
***Who do you usually spend time with when you are outdoors? Community Groups/ Church (Rank)	48.11	41.65	35.45	5.689	2	.058

In order to ensure that all of the data was similarly analyzed for first and second surveys, I re-grouped ethnicities into the two revised groupings as I had done in the first survey analysis. This included grouping participants who identified as “White, White American, Caucasian, European, European American” and all participants who identified as White and another ethnicity, into Group 4 in Table 11. The second group, Group 3, included all participants who did not identify as “White, White American, Caucasian, European, European American.” This resulted in three significant question associated with ethnicity (See Table 11). Participants in Group 4 were significantly more likely to identify religion as an area of most concern as well as identify community groups / church as who they usually spend their time with outside. Participants in Group 3 were significantly more likely to identify money as an area of concern than participants in Group 4.

Table 11

Significant Differences on Second Survey Questions Based on Ethnicity (Two groups)

Question	Means Rank		Chi-Square	df	Asymp. Sig.
	Group 4 (n=39)	Group 3 (n=41)			
Who do you usually spend time with when you are outdoors? Community Groups/ Church (Rank)	45.74	35.51	4.454	1	0.035
If you were to list the areas in your life that you feel the most concerned about, how would you rank them..... Money	35.21	45.54	4.038	1	0.044
If you were to list the areas in your life that you feel the most concerned about, how would you rank them..... Religion	49.54	31.90	12.102	1	0.001
** I take part in recreational activities which take place in natural places such as parks and/or wilderness areas.	45.29	35.94	3.759	1	0.053

The final analysis used responses to “Did you participate in any of Professor Grey’s fieldtrips this semester?” which was added to the second survey, as the independent variable, and one question was found to be significant (See Table 12). Participants who reported they had participated in fieldtrips were significantly more likely to take part in recreational activities on their own time.

Table 12

Significant Differences on Second Survey Questions Based on Participation on Fieldtrips

Question	Means Rank		Chi-Square	df	Asymp. Sig.
	Yes (n=47)	No (n=33)			
I take part in recreational activities which take place in natural places such as parks and/or wilderness areas	44.72	34.48	4.366	1	0.037

In summary, the second survey had more females than males participate. Similar to the first survey, the majority of the respondents were between the ages of 18-24 and had a high school diploma or some college education. Prior to age 18, participants ages 25 and older reported spending more time engaging in outdoor activities in their youth. When asked about

pro-environmental beliefs, females believed that by working with others they could influence the improvement of environmental issues. Participants ages 25 and older self-reported on taking part in environmental actions to resolve environmental problems. Both Women and participants in Group 2 believed that their own actions could influence the improvement of an environmental issue.

Women were significantly more likely to report that they are environmentally sensitive and participants in Group 2 were significantly more likely self-report participation in recreational activities and were more interested in and/or love of nature. Men rated school as an influence of who taught them about enjoying the outdoors, while participants who were 25 or older identified work as who they spent time with when enjoying the outdoors. Additionally, in Group 4 identified community groups / church as who they spent time with when enjoying the outdoors.

Similar to the findings from the first survey, the last question on the survey, which asked participants to rank the areas in their life they felt the most concerned about, provided several significant findings. Participants between the ages of 18-19 were more concerned about their health, while participants ages 20-24, identified the environment as an area of concern, and lastly participants ages 25 and above identified school as an area of concern. Participants in Groups 2 and 4 were significantly more likely to identify religion, while participants in Group 3 were significantly more likely to identify money. The next section will provide the findings for the third survey results.

Third Survey

The third survey was opened on February 4, 2016 and closed on February 14, 2016. On February 4th, all 108 of the participants who had participated in one or both of first survey and second surveys were emailed and provided the same instructions and guidelines from the

previous surveys. The difference for the extended survey is that rather than the email being distributed by Professor Grey, the email came from the created Gmail address that participants would email at the end of the first survey and second survey. At the close of the survey, there were 20 participants, one of which reported to be 17 and under and therefore their responses were removed. From the population of 108 participants this survey was made available to there was a 17.5 percent participation.

Unlike the first and second survey, only about 53 percent of the participants were between the ages of 18-24, while participants ages 25-above accounted for 47 percent. Similar to the first and second surveys results, 68 percent (n=13) identified as female and the percentages of participation by ethnicity are also very similar (See Table 13).

When participants were asked to self-identify three of the 19 participants identified as multiple ethnicities: White/Latina/o; White/Black; and East Asian / South Asian / Pacific Islander.

Table 13

Comparison of Ethnicity of Sample Population for All-Surveys

Category	Pre % (n)	Survey	
		Post % (n)	Extended % (n)
White, White American, Caucasian, European, European American	38% (45)	38% (37)	39% (9)
Black, Black American, African American, African, Afro-Caribbean	14% (17)	15% (15)	26% (6)
Latina/ Latino, Latina/Latino American, Latin American, Hispanic, Hispanic American	29% (34)	27% (26)	13% (3)
East Asian, Asian, Asian American	8% (9)	6% (6)	9% (2)
South Asian, Indian American, Asian, Asian American	1% (1)	3% (3)	4% (1)
Middle Eastern, Arab, Arab American	2% (3)	1% (1)	0% (0)
Pacific Island, Indigenous, Indigenous American, Asian, Asian American	5% (6)	7% (7)	4% (1)
Native American, Alaskan Native, Indigenous American, Hawaiian, Hawaiian American	3% (4)	2% (2)	0% (0)
Other: Human			4% (1)
Total	100% (119)	100% (97)	100% (23)

Due to low response rate, the third survey data will not be used in this study. An examination of a nonresponse bias was done by demographic to see if a particular age, gender, or ethnicity did not participate in the third survey, and what was found is that a large portion of participants ages 18-24 chose not to participate, additionally, there was a flux in participation between Black participants and Latina/o participants. In the extended survey, there was an increase of percentage by participants who self-identified as Black, with a drop in participation from participants who were Latina/o (See Table 13).

An explanation for the low participation may be accounted for through to two factors, the first is the dissemination of the survey, and the second the motivation for extra credit. As stated before, the first survey was part of the introduction of the study, and shared with participants face to face. Additionally, the email distribution with the link of the survey came from Professor Grey in both the first and second surveys. Additionally, when there was low participation in the first

survey, Professor Grey voluntarily emailed his students again, providing them with 10 points of extra credit for their participation. Professor Grey did not want to re-advertise the survey at the end of the semester, which can also be attributed to the lower participation on the second survey. Therefore, as a result of not having the email distribution from their professor, and not receiving extra credit points drew low participation in the extended survey.

Summary

Chapter one provided the reader a brief overview of this study, additionally providing some operational definitions for the reader. Chapter two provided a literature review on the topics of conservation norms, specifically looking at the practices of measurement in the areas of pro-environmental behavior and outdoor recreation. The methods, including the methodology and theoretical framework, for this study were found in Chapter three. Chapter four provided the findings from both the qualitative and quantitative research gathered for this study. In the next chapter, chapter five, the findings will be narrowed and discussed as they related to the two research questions in this study.

CHAPTER 5: ANALYSIS AND IMPLICATIONS

The purpose of this study was to take a multicultural approach to conservation research. This was inclusive of examining the role of conservation norms on non-dominant populations as well as the sociopolitical influences associated to the development of conservation citizenship. Chapter one provided an overview of this study. Chapter two covered previous literature on the topics of conservation, specifically highlighting areas of conservation norms around recreation and pro-environmental behavior. Additionally, chapter two reviewed literature on environmental racism, as well as access to and/or participation in conservation citizenship for non-dominant populations. Chapter three provided an overview of the theoretical perspective and methodologies this study followed. Chapter four presented the data collected for this study, and chapter five will explore connections between these findings and the research questions.

Discussion of Emergent Findings Relative to the Research Questions

This study sought to answer two main questions: What are the effects of conservation norms on non-dominant populations? and, How might sociopolitical influences limit the development of conservation citizenship? Several themes emerged from the data collected that highlighted both positive and negative effects of conservation norms on non-dominant populations, as well as sociopolitical factors that limit conservation citizenship. All findings related to the research questions will be discussed collectively, by first addressing the quantitative data for both research questions, and then addressing the qualitative data. Finally, a summary will be provided relating the data collected to each research question.

Pro-environmental Behavior Survey

Results of the first and second surveys, which measured participants' pro-environmental behavior, or REB, revealed several significant associations to the research questions. The first

area of significance is found through the comparison of participants ethnicities. As described in chapter four, participants were grouped by how they self-identified on the survey. Those who identified as “White, White American, Caucasian, European, European American” were placed into Group 1 and all participants who identified as “White, White American, Caucasian, European, European American” and another ethnicity(ies), were placed into Group 2. The third group included all participants who did not identify as “White, White American, Caucasian, European, European American” were placed into Group 3. Lastly, when compared between two groups, the first was all participants who identified as “White, White American, Caucasian, European, European American” and another ethnicity(ies), were placed into Group 4, and all participants who did not identify as “White, White American, Caucasian, European, European American” were placed into Group 3.

When statistically comparing these four groups, participants in Group 2 were found to have significantly more connectivity to nature and self-report pro-environmental behaviors. As participants in Group 2 self-reported being significantly more interested in and/or love nature, more likely to participate in recreational activities, and reported beliefs that their own actions could influence the improvement of environmental issues. When spending time outdoors, participants in Group 4, were significantly more likely to spend most of their time with friends and community groups or church (See Table 5, 6, 10, 11).

The next group of significance was found through gender. Overall, women were more concerned about the environment and believed that through their actions, and by working with others, they could influence the improvement of environmental issues (See Table 3 and 8). Lastly the final question, “If you were to list the areas in your life that you feel the most concerned about, how would you rank them?” found to be the most significant question in both surveys

(See Table 3, 4, 5, 9, 10, 11). Participants in Group 2 significantly more likely to identify religion, while participants in Group 3 identified family, loved ones, and pets, as well as money. Participants between the ages of 18-19 identified their health, while participants ages 20-24, identified the environment and participants ages 25 and above, identified school. These findings, help support the idea that there are various areas of concern in peoples lives. Although women, participants in Group 2, and participants ages 25 and above self-reported loving nature, being environmentally sensitive, and having beliefs that through their actions they can make a change in an environmental issue, neither of those groups identified the environment as an area of concern in their life. In relation to the research questions, these three groups have self-reported their beliefs to be in line with conservation norms, however when asked to compare their areas of concern in their life, the environment was not a priority.

A few interesting findings emerged from this study that were not anticipated. The first is from participants in Group 3 ranked family as the ones who taught them about the outdoors (See Table 6). This is interesting, as previous research on non-dominant populations recreation usage has only discussed who participants recreate with, but do not engage in a greater understanding of where they gain this knowledge (Burns et al., 2008; Floyd et al., 1993; Taylor et al., 2011; The Outdoor Foundation, 2014). Additionally, men rated school as an influence of who taught them about enjoying the outdoors, which was also an unexpected finding. This finding came from the second survey, which emulated that as the semester progressed men's participation on fieldtrips improved their knowledge of nature. Lastly, I found the self-reported behavior by participants older than 25 to be interesting. This age group self-reported being significantly more environmentally sensitive and more likely to take part in legal and environmental action to resolve environmental problems. Additionally, this group of participants also reported spending

more time engaging in outdoor activities in their youth (prior to age 18). This particular age group was interesting because participants older than 25 may have been exposed to different experiences associated with practice and participation with the outdoors and nature. Factors that may be associated include the influence and development of technology (e.g., video games, internet, etc.), as well as accounting for the development of Nature Deficit Disorder as coined by Louv (2008). However, this study suggests that there have been societal implications that influence access to the outdoors for older populations.

These findings that emerged from the survey provided context for participants' self-reported pro-environmental behaviors and beliefs. Several areas can specifically be linked to the research questions about the effects of conservation norms on non-dominant populations or the sociopolitical influences that might limit the development of conservation citizenship. Although, when looking at dominant versus non-dominant populations, females and participants in Groups 2, 3, and 4, demonstrated different beliefs and self-reported behaviors. The next section will provide the qualitative findings from this study as they relate to the research questions.

Observations and Interviews

Observational and interview data was collected throughout the semester, by attending pre-fieldtrip meetings, hiking side-by-side with participants, and observing post-fieldtrip meetings. This approach provided ample opportunities to create connections with the participants and develop a relationship as the semester progressed. On each fieldtrip, I built new relationships or continued relationships previously established, to either further dialogue or to gain a new perspective. By utilizing the go-along method (Kusenbach, 2003) and building those relationships, participants were provided a safe space to disclose information, ask questions, and/or interact with their peers as if I were not there as a researcher.

This process was instrumental to the success of the study, since the topics of discussion--dominant versus non-dominant experiences, sociopolitics, culture and race, environmental racism--are not commonly broached with strangers, let alone while hiking (Lawrence, 2005). Due to the social charge of these topics, none were discussed or asked about directly; rather questions and/ or prompts were utilized to probe participants' comfort levels and allow them to further engage as they were ready. This method led to the emergence of several themes throughout the semester. These themes have both negative and positive associations with the research questions, and will be grouped accordingly.

Negative Associations

The theme of negative associations provides some perspective on why participants may not have participated in a fieldtrip, or in outdoor activities prior to this semester, and also highlights participants' beliefs associated with the outdoors. These negative associations were identified by participants as social norms. The majority of participants were unfamiliar or inexperienced with the outdoors and this factor of the unknown led to fear. This next section will identify and explain the negative associations that were revealed throughout this study.

Cultural norms. Cultural norms were a topic of conversation between two Black participants on fieldtrip #2, the Magma Thrust hike. One male stated that statistically he should be "gang-banging" due to his upbringing, and a female student strongly asserted "I don't want to be no scientist, I do not care about nature." The male, Brad, was attempting to rationalize the need for a well-rounded society. He focused on the use of general education courses in college as a tool for developing participants' depth of knowledge in other fields, which then afforded them the opportunity to gain a different perspective. Leigh believed that such learning begins in the home, and if one is not afforded those options by their parents or home environment, it is one's

own duty to pursue opportunities on their own. She did not believe that one should have to pay for general education science courses just to be exposed to a topic, or to receive a degree. Brad disagreed by sharing his own personal experience with Leigh, stating that it was only through taking a general education science course in college that he had the opportunity to learn about something that he had never been exposed to before.

I got taken away by child protective service when I was 12. Both of my parents were drug addicts. I spent maybe four months in [group home], till my grandparents came and got me. So there is no way I would have been able to make it out to national parks such as this without initiatives like [Professor Grey's] What I'm trying to say is once you open a gateway, then you can explore... So when you are in a city like that, your mind is locked, you are only trying to find food for the next day.

Brad went on by saying, "So regardless of where you're at, if you're in a culture and, say this is your culture's norm, are you not still being oppressed? Do you not have that mental framework locked in your mind?"

On another fieldtrip, Brad said that he had never been hiking, or even outside of the city before his class with Professor Grey. He believed these experiences did "changed my life" by introducing him to fitness and exercise, as well as hobbies, such as biking and hiking, that he has adopted as part of his normal routine and "will never stop." Additionally, Brad has introduced his sister to Professor Grey, and she has since taken two of Professor Grey's classes and also attends the fieldtrips. Brad's reflections on his personal experience directly addresses the premise of sociopolitical influences that had once hindered him from developing conservation citizenship. The city limits were an exclusionary boundary for Brad; he was unaware of and not

exposed to what was available to him outside the boundaries of his neighborhood and community.

Deterrents. Participants' interactions with me, their professor, and their peers exposed some of the reasons why they had not participated in, or did not like outdoor recreation in the past, and why they have not engaged in outdoor activities on their own. These deterrents fell into the categories of fear, time, work, money, equipment, lack of knowledge, personal health, or lack of interest. While all of these deterrents contributed to the 'reasons' for their disengagement from the outdoors, fear and lack of interest will be focused on further below.

Fears. Fear was a primary category of concern for participants. Fear was associated with participants' initially signing up for a fieldtrip, concerns they had before they went on the fieldtrip, awareness they had while on the fieldtrip, and notions they described after the completions of the fieldtrips. These fears included: encounters with wild animals, lack of knowledge/inexperience, self-doubt, physical ability, getting lost, getting hurt, embarrassment, and bad past experience. The majority of the fears expressed related to lack of knowledge of the area and inexperience.

Disinterest. On all four of the fieldtrips, one or more of the participants expressed that the reason they had not participated in the outdoors was because they were not interested. On fieldtrip #1, Samantha, a young and vibrant Black female, shared that she was first introduced to the outdoors by friends when she was 21, and she thought her church had once visited a local recreation area when she was young. On fieldtrip #2, Tanya, a Black female describes her previous outdoors experiences by stating "Never, none of this, never." When asked "Why do you think you've never been out or been hiking before?" Tanya's response was "Because I was a single parent for a long time and this is not my kind of interest usually." Additionally, on

fieldtrip #2, Leigh, who was described above, said “I do not care about nature.” On fieldtrip #3, Kitty, a Black female who is taking five classes and has a full time job, emphasized that she does not like the elements of the outdoors, such as the bugs and heat, and much prefers air conditioning. Lastly, on fieldtrip #4, Bobby, a young Black male, responded to my question of why he had never been to Vision National Park by saying, “I don’t know, not to say that I was not interested, now I am more interested since I took his class, but now I understand, like the beautiful things”.

Deterrents were expressed by participants as reasons for lack of participation or disinterest in nature and the outdoors. Deterrents stemmed from a non-members lens of conservation norms and were molded from a deficit perspective. This deficit often stemmed from the lack of knowledge and lack of previous experience which allowed excuses, concerns, and fears to act as barriers to participation and engagement.

Perception of nature and future generations. During several of the fieldtrips, participants would reflect on the youth of today as well as the environment. Leigh, who wants to be a juvenile probation officer, believes:

Juveniles ain’t out here doing nothing. They aren’t out here trying to learn nothing... If anything they are going to be trying to do graffiti... I wouldn’t recommend them to come [outside] unless they was on my caseload and I just wanted to punish their ass.

Leigh’s beliefs both reflect that of negativity of who uses public land, and as well as devalues nature. Beth, a Latina mother of two, a full-time student with a full-time job, shared two perspectives about the youth of today. When discussing the recent camping trip her family took to Vision National Park, and how her children loved to hike, she shared “it’s not that kids are lazy, it’s just that they’re not given the opportunity to do things... they don’t know.” She then

reflected on her own lack of knowledge of the outdoors when she was growing up. The second perspective was shared when we were discussing how youth spend too much time indoors, and what that might mean for the future. She believes the youth of our future are not going to care about nature and that “they’re gonna dump shit outside... you know throw things out the window. You know kids naturally do things like that and you have to teach them otherwise.”

Negative association with authority. On three of the four fieldtrips, authority and rules were discussed. On fieldtrip #1, Mario brought up concerns of knowing the rules and regulations of the areas that you visit. On fieldtrip #2, several of the group members missed the initial turn off, which took them on a 13-mile one-way road. These participants then tracked down the Park Ranger to help them get to the correct trailhead to meet the group. Once at the trail, the Park Ranger asked Professor Grey to break the group into smaller groups while on the trail and, as discussed in chapter four, one of the groups got lost. During the post-fieldtrip meeting, all five sections talked about getting lost, whether it was on the road or on the trail, but four of the five class sections blamed the Park Ranger for forcing Professor Grey to break up the class. Additionally, on Fieldtrip #2, Leigh described youth coming to parks to do graffiti then states “that’s what you got park rangers and stuff out here for, it’s my job to punish them for it.”

Authority was discussed before, during and after fieldtrip #4 to Vision National Park. Professor Grey used a cautionary tone to warn the participants of the Park Rangers, informing participants that the cost of tickets would be more because this was a National Park, and asked participants to not disturb the campground at night, something that had happened in the past. While on fieldtrip #4, Samantha discussed an interaction with a Park Ranger on her last visit to Vision. She explained that she and her friends came into the park late at night, parked on the side of the road, and fell asleep in the truck bed. They were awakened a by a female Park Ranger, and

were kindly reminded that what they were doing was illegal, and were provided directions to an appropriate campground. When telling the story, she had a tone of surprise, stating that “she [the park ranger] was really cool about it.” Lastly, when participants returned from the fieldtrip, their classmates asked if there were any problems with authority on the overnight stay, to which their response was “no.”

An overview of negative themes associated with the research questions has been provided. These themes have provided examples of the negative associations between non-dominant populations and nature. Sociopolitical influences were manifested through the expression of exclusion, lack of access, insufficient knowledge, fear, and misconceptions all of which hindered the participation in, and knowledge about, the outdoors. The next section will review the themes that have a positive association with the research questions.

Positive Associations

Participants utilized these fieldtrips to step outside their comfort zone into the unknown and to break down fears and barriers that had previously been a deterrent to their interacting with nature. Positive experiences arose from a variety of factors and perceptions. A majority of the fieldtrip participants, even the girl who broke her nose on the trail, shared that they had had a positive experience. A Black female reported to her classmates in one post-fieldtrip meeting (#3), “It was my first hike, so I didn’t know what to expect, but it’s interesting...it changes your perspective of hiking in general...it was pretty...it was interesting. I liked it.” Additionally, a Latina reported to her classmates in the post-fieldtrip meeting of the Vision fieldtrip (#4):

The hike was pretty rough ‘cause I’m not used to exercising. Just going up there and trekking with everybody was cool because I don’t really hike. The camping part was the

toughest thing ever, because I hate camping...It was an experience that I would definitely do again.

Many factors contributed to participants' positive experiences. The next section identifies what emerged as positive attributes of their experiences.

Exposure to nature. Participants were effusive after each of the fieldtrips about their exposure to nature (e.g. beauty, exercise, seeing wildlife, night sky, stars). During every fieldtrip and post-fieldtrip meeting, the conversation included discussion of the beauty, the views and scenery, and the colors of nature. Participants repeatedly offered to share the pictures they had taken on the fieldtrips with the class, but solemnly stated "the pictures do not do it justice." When discussing the natural beauty, the majority of participants expressed that they had never seen anything like this before in their life. A White female shared with her classmates during the Vision post-fieldtrip meeting, "I had a blast...it was hard, it was challenging and scary, but when we got to the top, I don't think I've ever seen anything as pretty as the view we had." Similarly, a Latina reported to her peers on the same fieldtrip, "Honestly it was the hardest thing I've ever done but it was rewarding when we go to the top... it's the most beautiful view ...it's incredible, and it's awesome. The camping part was fun... I was glad I went."

Interactions and camaraderie of their classmates. On each of the fieldtrips, participants cheered each other on, supported and cared for those that were nervous, inexperienced, or struggled. Each of the four fieldtrips had numerous examples of classmates supporting each other and developing friendships with members of their class or with participants who were in a different class. A Latina reported to her classmates in the post-fieldtrip meeting of fieldtrip #4:

It was a really good experience. I'd only been camping once before and I was like I'm never gonna go camping again because it was really bad. But this time I think, with having like everybody in the group in all that, having people who knew how to camp. It was a lot of fun. I only knew one girl in the carpool and there was like six of us, and by the end of it we were like BFF's... I really didn't sleep 'cause I kept waking up and I kept thinking something was gonna eat us. I'm terrified of like the dark and all that but it was really fun."

Sense of accomplishment. During each post-fieldtrip meeting, participants would describe their sense of pride for their attempt and/or accomplishment. As stated in chapter four, Mt. Chester was an 18-mile hike with about 5,000 ft. elevation gain. Even though some participants required a few days to recover, they nevertheless emanated pride for at least attempting this feat. Pride and self-confidence was shared by participants on all four of the fieldtrips. Taylor, a Latino male shared with his classmates at the post-fieldtrip meeting for fieldtrip #1:

Honestly, I wasn't gonna sign up for the hike either 'cause I was pretty intimidated by the 10 hours and the hiking, but just through the progress that we made together--like all of us as a class--I think I did pretty good. I think everybody did pretty good 'cause like people you judge them by just the physical standards and even they made it up and even I couldn't make it up cause I didn't make it to the top, we stopped probably like, I dunno, four or five miles before the top of the mountain, and that was just the basic of the stopping point, but if you have at least the willpower to even sign up, I think that's a round of applause to you guys, if you guys even try it, to make it to the two-mile point or

even go, I think that takes a lot of courage because that mountain really tests who you are and how much you can push yourself on that day.

An expressed desire to return/do more. Many of the participants expressed a desire to return and/or to further explore the areas they had visited with Professor Grey. An Asian male reported his experience to his classmates in the post-fieldtrip meeting of fieldtrip #4:

This was like my first time camping, so it was definitely a new experience. I definitely want to go back to Vision and see the whole trails because we only do one and there's like a whole bunch of other trails. Definitely want to go back one day.

Participants that had never participated in outdoor recreation were provided step-by-step instructions by Professor Grey on what to expect, what to bring, detailed directions, and then were personally led by Professor Grey. For those who had previously experienced boundaries or limited access, many of those barriers were taken down, and they were provided with the knowledge and the experience to return on their own. Additionally, many of the participants discussed how family members were excited about their endeavor, and wanted them to remember everything so they could take their family there.

Appreciation of their professor. Lastly, participants developed a habit for expressing appreciation for Professor Grey, who organized the fieldtrips and provided them these opportunities. As discussed in chapter three, during the post-fieldtrip meetings, Professor Grey would leave the classroom and close the door behind him. He wanted his participants to share their experience as it happened, uninfluenced by his presence. Even though each of the fieldtrips had some sort of chaos, or organizational glitch, participants still shared their admiration and appreciation for Professor Grey. A Black female reported to her classmates in the post-fieldtrip meeting of fieldtrip #3:

I never thought about going on a full moon trip, I thought it would be dangerous and I would hurt myself, but having someone that would help you, it was a great experience...

But I love how he take the time to tell us to do all of these fieldtrips...I would have never done this, like on my own time, like having him to actually push us to do something like that always recommending us to do these fieldtrips, it was great.

A White male shared during the post-fieldtrip meeting of fieldtrip #3, "The professor is cool, especially when you see him, like in his own state; ...the way he describes everything, he's just really into it and it makes me appreciate it more." Additionally, a White male shared during the post-fieldtrip meeting of fieldtrip #4:

It was cool, but I appreciated the experience more and I think he does the extra credit to get people out and to experience these kinds of things, which most people wouldn't, so I enjoyed it and I would definitely go again.

Lastly a White female shared during the post-fieldtrip meeting of fieldtrip #3:

I wanted to point out like how good, just like a person he is, like he would stop and help everybody like get over a rock or something... he is really a good teacher and person to like take his time out of his life to go and do this with us and it's like he should really be like thanked for that; so I really appreciate him, all of his teaching of us and helping us get through that hike because it was pretty difficult towards the end."

The combination of these factors appeared to break down many barriers for non-dominant participants and defuse the fears based on lack of knowledge and inexperience with the outdoors. Participants were given permission to be 'new' at hiking, camping, or visiting the outdoors. They were able to take on this experience with support from their peers who were also inexperienced, all while under the supervision and guidance of someone they trusted. Overall,

these fieldtrips provided a safe and memorable immersion in a totally new experience for many of the participants.

This last section provided a review of the positive effects of exposure to conservation norms had on non-dominant populations. Through the exposure to both nature and conservation norms, non-dominant participants were provided beneficial experiences which were inclusive of the beauty of nature, comradery with their peers, sense of pride, desire to experience more, and the respect of their professor. These experiences metaphorically broke down the barriers of exclusion, because through their participation they were invited into, and taught how to, practice of the dominant cultures norms. Essentially a member of the dominant population (Professor Grey), provided the access for his students to have the knowledge and experiences to engage in outdoor recreation on their own.

Summary of Findings Relative to the Research Questions

A convergent parallel design analysis (Creswell & Clark, 2011) was used in this study, allowing the distinct analysis of qualitative vs quantitative data, which was then utilized to inform the overall interpretation of the findings (Creswell & Clark, 2011). This study found that when looking through the lens of qualitative and quantitative data collection, different findings emerged and, through the combination of the two methods of data collection, a grander understanding is made available.

When looking collectively at all of the data, with a focus on this study's research questions, it was found that non-dominant populations are negatively affected by conservation norms. Conservation norms are defined in this study as acceptable and expected beliefs, practice, interactions, behaviors that both individuals and communities promote and expect in accordance with conservation. These norms are usually situated around the laws of the area, and are often

passed on as traditions through families or communities. This negative association was manifested through deterrents (e.g., fear, embarrassment, inexperience), direct expression of exclusion through cultural upbringing, and beliefs which have been taught, seen or practiced. However it was also found through this study that these negative impacts can be at least partially reversed, if individuals are provided opportunities for structured experiences with supportive peers and a trusted facilitator. Once these elements are introduced, non-dominant populations are then able to positively benefit from the conservation norms.

The data collected in this study additionally provides information regarding the influence of sociopolitical factors that can limit the development of conservation citizenship. Sociopolitics is defined in this study as the context of society, which includes laws, regulations, policies, practices, traditions, and ideologies. Generally, sociopolitics refer to the manifestation of power relationships and how they operate in society to systematically privilege some and disadvantage others on the basis of varied dominant and non-dominant identities (Brown, 2006; Nieto & Bode, 2008). This study found that sociopolitical influences can and do limit the development of conservation citizenship. Conservation citizenship encompasses concepts of civic responsibility/engagement and environmental stewardship, and is defined in this study as the process that allows individuals to explore environmental issues (both community and public problems), engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions, for this and future generations (Burgess et al., 1998; Dobson, 2007; Dobson & Bell 2006; U. S. EPA, 2016). It was found that lack of previous experience, which often stemmed from lack of access, hinders the development of conservation citizenship. Participants specifically identified barriers such as city limits, work schedules, time,

lack of previous experience and knowledge, health, and lack of influential people in their community to provide immersion. Sociopolitical influences are imbedded in all of these deterrents, thereby limiting the development of conservation citizenship. As discussed in chapter two, when one is deprived of opportunities to develop their own conservation citizenship, it perpetuates the dominant culture's norms, which are then passed on to future generations without accounting for non-dominant populations' voices, experiences, or beliefs. In summary, the findings from this study provide evidence that non-dominant populations are negatively affected by conservation norms and that sociopolitical influences can limit the development of conservation citizenship.

The following sections will discuss the significance of this study to the field of conservation and education. This chapter will then provide recommendations for future education and research in these fields

Significance of the Study

The primary significance of this study is the novelty of exploring pro-environmental behavior with a widely diverse audience through convergent mixed methods research. As such, this study is relevant to future research on conservation as its theoretical framework “document[ed] the nature of oppression and the process of empowerment, ‘accelerating the conscientization of the oppressed and the oppressors’” (Barton, 2001, p. 907). Additionally, the methodology provided insight into conservation norms through both qualitative and quantitative data. As there is little to no previous research on the measurement of pro-environmental behaviors between diverse populations, the findings from the surveys found a few differences of self-reported pro-environmental behavior within the study's participants. This is significant for the field of conservation research, as stated in chapter two, members of non-dominant

populations are often not accounted for, or their participations is reported to be significantly less than dominant population participation in outdoor recreation activities. This study sought to critique current quantitative research approaches on pro-environmental behavior which utilized the dominant cultures norms as the standards of pro-environmental behavior measurement; the findings for this study insinuates that a one-size fits all model may not matter as long as the population of which is being surveyed is diverse rather than being generalized. This conclusion stems from the lack of significance between Groups 1, 2, 3 and 4, in both surveys.

As stated previously, most research on conservation has been through the quantitative methodologies, therefore, this study is significant to the field of conservation research because it provides a convergent mixed methods approach conservation. Additionally, previous research has yet to question the measurement norms against which research practices are comparing diverse populations. This study is significant, therefore, because it offers a critical ethnographic lens through which to examine the data collection process data and the language and norms that are perpetuated.

Recommendations for Future Education and Research

Previous research in conservation has utilized the colorblind approach and disregarded possible factors that could significantly contribute to the body of research. A colorblind approach to teaching and learning is evidenced when an instructor, teacher, or facilitator assumes that everyone comes to their classroom with equivalent prior experiences and knowledge (Banks, 2001; Nieto, 2009). In reality, each evaluative criterion for future research must be approached as *opportunity* for equitable research. The difference between equal and equitable evaluation is that equitable evaluation does not assume that everyone starts on a level playing field, or should be evaluated in the same way (Falk, 2012; Ladson-Billings, 1995a; Nieto, 2013; Nieto & Bode,

2008; Nieto & McDonough, 2011). A recommended technique for future conservation education and research is to embrace a multicultural approach.

Multiculturalism

Multiculturalism is a process, the success of which, when viewed through the lens of conservation, is reflected in students' inclination toward citizenship, now and in the future (Cao, 2015; Nieto & Bode, 2008). Multicultural education is a multifaceted educational developmental process. A multicultural approach to education acknowledges sociopolitical influences (unequal power relations) in education, and seeks to address them through the affirmation of student diversity broadly and complexly considered (Barton, 2001; Barton & Yang, 2000; Nieto & Bode, 2008; Sleeter, 2001). Diversity is affirmed through multicultural education by placing students' personal and group histories, and related modern day experiences at the center of the teaching and learning process (Nieto & Bode, 2008; Sleeter, 2001). Multicultural educators need to become culturally competent by critically examining power relations in their schools, in the communities in which they teach and live (which may be very different), and in the world (Barton & Yang, 2000; Ladson-Billings, 2000; NAME, 2003; Nieto & Bode, 2008). Through this affirmation, multicultural educators strive to provide high quality, culturally responsive education to all students as they develop the attitudes and values necessary to meaningfully contribute to a democratic society (Ladson-Billings, 1995b; NAME, 2003). A fully realized democratic society, from a multicultural perspective, promotes sensitivity to all, embodies an appreciation for diversity, encourages advocacy for self and others, and fosters critical awareness. In a democratic society, citizens build comprehensive knowledge, seek personal and community empowerment, and are civically engaged (Banks, 1995; Banks & Banks, 2009; Barton & Yang, 2000; Nieto & Bode, 2008; Sleeter, 2001).

Through this description of multicultural education, the interconnectivity of learners, families, schools, community, and society emerges. Although the process of multicultural education, when conceptualized as developmental, appears to be linear in nature, it is not rigidly or stagnantly so. Personal experience, culture, and ways of knowing continuously interface with sociopolitics. In this way, multicultural education encourages on-going re-evaluation of self, relative to positionality (place) and power. This re-evaluation leads to the questioning of stereotyping, prejudice, erroneous labeling, and discrimination (Nieto & Bode, 2008), furthering understanding of how past and continuing sociopolitical influences impact communities and society, including non-dominant and dominant populations. Multicultural education propels learners—both children and adults—to seek ever-greater access to full participation in democratic society through relationship and knowledge building applied to social action to solve “real world” problems (Sleeter, 2001).

Multicultural Citizenship

Multicultural citizenship encourages individuals to self-reflect and examine their knowledge, beliefs, and practices relative to their roles within their homes, schools, and communities (Banks, 2001; Scott & Gough, 2003). Rather than only developing a sense of self-awareness that has direct impact on themselves, multicultural citizenship encourages understanding of the larger world—connectivity between and among attitudes, senses of place, power structures and systems, and agency (self-efficacy to make change)—that seek to drive curiosity towards critical consciousness—what Friere (1970) calls the process of conscientization. Additionally, multicultural citizenship encourages individuals to obtain “knowledge, understand the relationship between knowledge and action, develop a commitment to act to improve the world, and acquire the skills needed to participate in civic action” (Banks,

2001, p. 9). Multicultural citizens take actions within their communities and nations to make the world more humane. From a Freirean perspective, multicultural citizenship education helps students learn how to act to change the world. Freire's (1985) ideal is that, "students must be taught to read the word and the world" (Banks, 2001, p. 12).

As these principles have been applied to school and learning, they additionally need to be applied to community (Jickling, 2005). Multicultural conservation can be an avenue to empower people in communities to challenge and advocate against negative sociopolitical influences, become and stay informed about issues impacting their lives, pursue opportunities to improve community circumstances, and adopt new behaviors that enable them to advocate for and promote environmental change (Barton & Tan, 2010; Ceaser, 2015; Illich & Verne, 1976). Multicultural conservation can serve as a platform for the development of environmental advocacy, empowerment, and stewardship by current and future populations (Kahn, 2008). It expands the educational lens from singular problem- or issue-foci by affirming a broad range of opinions, beliefs, and experiences that, in turn, extend educational opportunities. Multicultural conservation is not just a practice that legislators, policy makers, educators, or students should embrace; it is a practice to be adopted by society in order to develop a societal movement that advances environmental consciousness and related behaviors (Kahn, 2008; Krause, 1993; Sleeter, 2001).

Suggested Steps for Implementation

Throughout this study, as single professor's idea became the catalyst for change in breaking the barriers of dominant versus non-dominant behaviors and beliefs. As a science educator, Professor Grey took a multicultural approach to his teaching by acknowledging that his students had diverse backgrounds and varied levels of experience in both science and nature.

While his curriculum in the classroom was strict, ensuring each chapter of the textbook was covered thoroughly, he knew that the majority of his students did not have the life experience to relate what they were learning in his classroom to what they were experiencing in their daily life. With a passion for both the outdoors and for science, Professor Grey developed his courses to allow his students to learn both the “rules of school and science” and how to make personal connections with nature (Barton, 1998).

Another example of a multicultural approach to conservation is found through the work of Shelton Johnson, a Park Ranger with the National Park Service. Johnson describes himself as young boy who dreamed of the mountains while growing up in inner-city Detroit; yet his only exposure to the outdoors came from what he saw on television (Shumaker, n.d.). During college, he began working for Yellowstone National Park and asked his friends “Where are all the black people? (Shumaker, n.d., p. 260). Throughout Johnson’s career with the National Park Service, he utilized his own experiences as a “little black kid in Detroit” to illuminate the exclusionary practices of using a single narrative in environmental education. Through his pursuit to break down barriers for youth who are growing up just as he did, he came across a photo of the Buffalo Soldiers and described the experience as “stumbling into your own family while traveling in a foreign country” (Shumaker, n.d., p. 261). Johnson has since dedicated his career to telling the story of the Buffalo Soldiers, a piece of history that was never told by the National Park Service. Johnson gives a voice to the soldiers, describing their experiences as well as giving a first person narrative about slavery and racism. Utilizing the story of the Buffalo Soldiers, Johnson strives to build a bridge between parks and inner-city youth, but more specifically to make youth aware of their connection and place in National Park’s history.

These two educators, have utilized a multicultural approach to build a bridge of experience and connectivity to populations who have historically been excluded from conservation citizenship. Through their own unique lens, each of these educators have acknowledged and circumvented the manifestation of power in society which has systematically privilege some and disadvantage others (Brown, 2006; Nieto & Bode, 2008). These two examples were provided as suggestions for implementation, to acknowledge that a multicultural approach to education is not just a theme nor should it only be implemented under the roofs of formal education structures. Rather, a multicultural approach, to both education and conservation, is a process of empowerment and self-awareness, for both educators and learners, which can be included in a variety of educational settings and topics. These two examples were provided so that other educators may learn from Professor Grey's consciousness of his student's home and past experiences, thus providing his students an equitable learning opportunity both in and out of his classroom. Furthermore, these examples encourage current and future educators to illicit a critical lens of whose voices and experiences are at the foundation of your curriculum, as well as examine the norms that are being upheld in your schools rules and policies. Most importantly, these educators fostered the development of conservation citizenship by allowing their learners to make a connection and develop a deeper sense of belonging and inclusion which was never offered to them before.

Limitations

There are several limitations to this study. The first is a recognition that there has not yet been a multicultural method developed to conduct research on conservation; thus, there is no prior research on which to model this study. For that reason, the research in critical ethnography, conservation norms, recreational usage and responsible environmental behaviors, and

environmental racism concerns were blended to provide some foundation in this regard. This ties directly to a second limitation, which is the survey selected for the quantitative data collection in this study. The survey followed the social norms of what is deemed “generalizable environmental concerns,” and did not allow a participant’s responses to fully disclose their identity, or their association with or against sociopolitical influences. As a result, participants were grouped based on their self-reported ethnicity (Groups 1, 2, 3, and 4). The intention of this study was to move away from the monolith representation of one or more ethnic groups (Carr & Williams, 1993), and move towards an inclusive examination of personal experience and voice. I hoped to mitigate this limitation with the questions added to the survey (questions 28 – 33) that allowed students to identify themselves as aligning with or against the social norms of REB (See Appendix A: Defining Your Environmental Behavior Survey).

As with all research, the biases of the investigator presents possible limitations. As a White middle-class female, I have been privileged to conservation norms in accessing and engaging in myriad outdoor activities. While growing up, my family resided in a community with plenty of open, green places, and we visited National Parks and went camping. My professional career, both in the Non-Governmental Organization (NGO) and public sectors, have included positions with the National Park Service and with non-profit organizations that provide outdoor recreation and education. As a critical ethnographic researcher, I reflect on these experiences through a critical lens, recognizing that these opportunities are not equally available to and/or experienced by all populations. As a multicultural educator, I understand that bias is built into everything, including research, so rather than try to control for bias (as if it were meaningfully possible to do so), I leaned into potential, perceived, and revealed biases. All biases were interrogated relative to the discussion of study findings and implications.

Conclusion

Throughout the history of the United States, conservation norms have been developed and implemented by members of the dominant culture. Although culturally-based conservation norms were already established before the European colonization, the implantation of rules and policies enacted framing how the land and natural resources were going to be managed moving forward. Laws established the manifestation of power, which further laid the groundwork for conservation-based norms to be assimilated in and around dominant culture ideals. As a result, a divide flourished between dominant and non-dominant populations. This divide benefited the dominant culture, as sociopolitics worked in favor to ensure longevity of their beliefs. To the contrary, non-dominant populations were subjected environmental inequality, resulting in the segregation and oppression of non-dominant populations association with, and access to the development of conservation citizenship.

In a world where change is the only constant, there has been little change in research on conservation. Conservation research upholds norms of the dominant culture as the standard of expectation, but also perpetuates the divide between dominant and non-dominant populations. As a result of focusing on the norms, research practices have neglected to account for non-dominant populations conservation related practices and beliefs which ultimately lead to labeling and negative stereotyping of members of the non-dominant populations (Barton, 2001; Burns et al., 2008; Byrne, 2012; Finney, 2014; González-Gaudiano, 2005; Taylor, 2014a; Yearley, 2005). Through the use of convergent mixed methods, this study documented both the positive and negative effects of conservation norms on non-dominant populations, and identified how sociopolitical influences limit the development of conservation citizenship. Additionally providing further documentation of the exclusionary practices related to conservation.

Through the pursuit to entice a society to adopt pro-environmental behaviors, sociopolitics must be acknowledged in current and future research and education in around the topics of conservation. As found in this study, the manifestation of power relationships and how those relationships operate in society to systematically privilege some and disadvantage others on the basis of varied dominant and non-dominant identities, have systematically altered populations access to the development of conservation citizenship (Brown, 2006; Gibson-Wood & Wakefield, 2013; Nieto & Bode, 2008). Therefore, a societal shift must occur to dismantle the conservation-related gap between dominant and non-dominant populations, as well as mitigate further detrimental practices, for and to society and the environment. Best and Nocella (2006) state “environmentalism cannot succeed without social justice and social justice cannot be realized without environmentalism” (p. 20). A recommendation to diminish this gap and promote social justice is through the adoptions of a multicultural citizenship. Multicultural citizenship fosters the development of self-awareness as well as the connectivity between and among attitudes, senses of place, power structures and systems, and agency that seek to drive curiosity towards critical consciousness. With a multicultural foundation, individuals are then able to develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions, for this and future generations (Burgess et al., 1998; Dobson, 2007; Dobson & Bell, 2006; U.S. EPA, 2016).

APPENDIX

- A. Defining Your Environmental Behavior Survey
- B. Timeline of Data Collection
- C. Fieldtrip Participants by Pseudonym
- D. Definitions of Variables (Hines, Hungerford, & Tomera, 1987)
- E. Psycho-social Constructs (Bamberg & Möser, 2007)

Appendix A

Defining Your Environmental Behavior Survey

PARTICIPANT CODING:

The researcher will use your participant code to compare your responses on the different iterations of this survey without having to know who you are.

Your Participant Code is:

Last two letters of your last name ____ (example: Smith T H)

Day of birth ____ (example: January 19, 1990 1 9)

Color of eyes _____ (example: Blue)

Please enter YOUR PARTICIPANT CODE below. Example TH-19-BLUE

2) What is your current age?

17 and under	18 – 19	20 - 24
25 – 29	30 – 34	35 - 39
40 – 44	45 – 49	50 and above

3) How do you identify?

Male Female Trans*

4) What is your ethnicity? (Check all that apply)

White, White American, Caucasian, European, European American
Middle Eastern, Arab, Arab American
Black, Black American, African American, African, Afro-Caribbean
Pacific Island, Indigenous, Indigenous American, Asian, Asian American
Latina/ Latino, Latina/Latino American, Latin American, Hispanic, Hispanic American
Native American, Alaskan Native, Indigenous American, Hawaiian, Hawaiian American
East Asian, Asian, Asian American
South Asian, Indian American, Asian, Asian American
Other: _____

5) What is the highest level of education you have completed?

High school graduate	Some college	College graduate
Some postgraduate work	Post graduate degree	Prefer not to answer
Trade/ technical/ vocational training		

6) Do you consider yourself as someone who cares about the environment?

Yes No

7) About how much time per week do you spend outside?

0-4 hours	16-30 hours	5-15 hours
31 or more hours		

8) _____ taught me about enjoying the outdoors. (Check all that apply)

Family	Community groups/ Church	School
Sports/Exercise	TV/ Movies	Friends

Other: _____

9) If you checked more than one item in question above, please rate their relative influence.

(Drag the most influential to the top & least influential to the bottom)

TV/ Movies

Family

School

Friends

Community Groups/ Church

Sports/Exercise

Other _____

10) Who do you usually spend time with when you are outdoors?

(Drag the items into the appropriate time slot **ALL ITEMS NEED TO BE DRAGGED INTO A BOX TO CONTINUE)

Categories: Most of my time

Some of the time

No time at all

Items

Family

Alone

School/Classmates

Friends

Community Groups/ Church

Animals/Pets

Work

Other _____

11) Please mark all of the places you have been in Southern Nevada. (Check all that apply)

Lake Mead

Valley of Fire State Park

Mt. Charleston

I have not been to any of these places

Red Rock Canyon

Other _____

12) What factors have stopped you from enjoying the outdoors? (Check all that apply)

Family

Not familiar/ lack of knowledge

School

Pollution

Money/Cost

Fear

Access

Time

Work/Job

Other _____

This Section Asks You to Self-Report On Your Own Behavior

13) I take part in recreational activities which take place in natural places such as parks and/or wilderness areas (e.g., outdoor sports, camping, hiking, etc.).

Never

Rarely

Sometimes

Often

Always

14) During my youth (prior to age 18), I participated in outdoor activities which took place in natural places.

Never

Rarely

Sometimes

Often

Always

15) I am environmentally sensitive (meaning that you appreciate and care about the environment).

Never

Rarely

Sometimes

Often

Always

16) I am interested in and/or love nature.

Never

Rarely

Sometimes

Often

Always

17) I am concerned about the loss of natural areas and/or habitats.

Never

Rarely

Sometimes

Often

Always

18) I am concerned about the effects of air and/or water pollution on humans.

Never Rarely Sometimes Often Always

19) I feel it is my personal responsibility to help improve environmental quality in my community.

Never Rarely Sometimes Often Always

20) I feel it is also other people's responsibility to help improve environmental quality in my community.

Never Rarely Sometimes Often Always

21) I take part in environmental actions which include working directly with nature (e.g., planting trees or flowers; participating in community clean-ups; garbage reduction; recycling; energy conservation) to help prevent or resolve environmental problems.

Never Rarely Sometimes Often Always

22) I take part in environmental actions which include consumer/economic actions (e.g., avoid buying products which cause pollution or harm wildlife; donating money to environmental groups) to help prevent or resolve environmental problems.

Never Rarely Sometimes Often Always

23) I make use of persuasion (e.g., encourage others to recycle or reuse materials; educate others about the importance of protecting the environment; encourage others to plant trees) to help prevent or resolve environmental problems.

Never Rarely Sometimes Often Always

24) I make use of political action (e.g., voting for a "pro" environmental candidate; writing or calling elected officials persuading them to support environmental protection) to help prevent or resolve environmental problems.

Never Rarely Sometimes Often Always

25) I take part in legal action (e.g. reporting pollution violations; report if someone is breaking environmental laws) to help prevent or resolve environmental problems.

Never Rarely Sometimes Often Always

26) I believe my own actions can influence the improvement of an environmental issue.

Never Rarely Sometimes Often Always

27) I believe that by engaging in actions with others I can influence the improvement of environmental issues.

Never Rarely Sometimes Often Always

Please Express Your Opinion About Each of the Following Statements

28) I feel that I have knowledge about environmental issues and act environmentally responsible, however the media represents me, and members of my community as not environmentally aware.

Strongly Disagree Disagree Neutral Agree Strongly Agree

29) I am aware of, and concerned about environmental issues in my community, but am not as aware of or concerned about national or global environmental issues.

Strongly Disagree Disagree Neutral Agree Strongly Agree

30) Environmental conservation was taught to me in my home, church, or community.

Strongly Disagree Disagree Neutral Agree Strongly Agree

31) Environmental issues that affect my community do not match those that are discussed in class or in the media.

Strongly Disagree Disagree Neutral Agree Strongly Agree

32) Friends or family members make me feel like an outsider if I talk about environmental issues.

Strongly Disagree Disagree Neutral Agree Strongly Agree

33) Final Question: If you were to list the areas in your life that you feel the most concerned about, how would you rank them (drag the area of most concerned to the top and least concerned to the bottom).

Social Life

Environment

Family/ Loved Ones/ Pets

Health

Job

Money

School

Religion

Other _____

Appendix B

Timeline of Data Collection

In-class Introduction of the Study: Wednesday, September 2, 2015

In-class Introduction of the Study: Thursday, September 3, 2015

First Survey: open from September 3 – 12, 2015

FIELDTRIP #1: MT. CHESTER HIKE

Pre-trip Meeting: Thursday, September 10, 2015

Fieldtrip: Friday, September 18, 2015

Post-Fieldtrip Meeting: Monday, September 21, 2015

Post-Fieldtrip Meeting: Tuesday, September 22, 2015

FIELDTRIP #2: MAGMA THRUST HIKE

Pre-Fieldtrip Meeting: Thursday, October 1, 2015

Fieldtrip: Friday, October 23, 2015

Post-Fieldtrip Meeting: Monday, October 26, 2015

Post-Fieldtrip Meeting: Tuesday, October 27, 2015

FIELDTRIP #3: FULL MOON HIKE

Pre-Fieldtrip Meeting: Thursday, October 22, 2015

Fieldtrip: Thursday, October 29, 2015

Post-Fieldtrip Meeting: Monday, November 2, 2015

Post-Fieldtrip Meeting: Tuesday, November 3, 2015

FIELDTRIP #4: VISION NATIONAL PARK: TRAIL TO HEAVEN HIKE AND OVERNIGHT CAMPOUT

Pre-Fieldtrip Meeting: Thursday, November 5, 2015

Fieldtrip: Friday November 13- Saturday November 14, 2015

Post-Fieldtrip Meeting: Monday, November 16, 2015

Post-Fieldtrip Meeting: Tuesday, November 17, 2015

Second Survey: open from November 29, 2015 – December 10, 2015

Third Survey: open from February 4 - 14, 2016

Appendix C

Participants by Pseudonym

- Adam: Male; Hike leader on the fieldtrip #1, strong Italian background, admired Professor Grey, proud of his completions and to share his knowledge and previous experience of hiking with his peers
Participated in Fieldtrip: 1
- Angela: Young Latina, thinks that outdoor recreation might be her new hobby.
Participated in Fieldtrips: 1
- April: White female, wanted to become a geologist; an experienced hiker; needed to stop for breaks
Participated in Fieldtrip: 4
- Beth: Latina, mother of two, two jobs, and full time students; Believes kids need to be taught about the outdoors and how to protect it. Work and time is a major deterrent
Participated in Fieldtrips: 1
- Betty: Latina, married to Drake. Started a hiking program when in High School; out of Shape; but loves to be outside
Participated in Fieldtrips: 1, 2, 3, and 4
- Bill: Latino, hiked with both knees in compression sleeves, described work to be a deterrent from Participating in the outdoors and fieldtrips
Participated in Fieldtrips: 1 and 3
- Bobby: Black male, stated the at the reason he had not been in the outdoors, “Not to say that I was not interested, now I am just more interested since I took his [Professor Grey] class... but now I understand, the like beautiful things.”
Participated in Fieldtrips: 1 and 4
- Brad: Black male, previous student of Professor Grey; introduction to outdoors via fieldtrips with Professor Grey; Experience is “life changing”; has discussion with Tanya on fieldtrip# 2 about citizenship, society, and oppression.
Participated in Fieldtrips: 1, 2, and 3
- Christina: White female, college cheerleader; participants in outdoor recreation with her family
Participated in Fieldtrips: 3 and 4
- Deborah: Latina, stayed behind to ensure Tanya was ok on the hike.
Participated in Fieldtrips: 2
- Diane: Polish female. Wore boots with a heel while hiking because they were soft; out of shape; Discussed her experience of bringing ‘norms’ from her country to the U.S.
Participated in Fieldtrips: 2
- Derek: White male, he and his girlfriend Kristin were experienced hikers and campers
Participated in Fieldtrip: 4
- Drake: Montenegrin male, married to Betty. First time camping, previous experiences in outdoors usually included driving around.
Participated in Fieldtrips: 1, 2, 3, and 4
- Henry: Asian male, grew up in Panama and used to camp in Panama but this was his first time camping in the United States
Participated in Fieldtrips: 3 and 4
- Jessica: White female, previous student of Professor Grey; out of shape; quick witted; was homeless before moving to San Meadows;
Participated in Fieldtrip: 4
- Jasmine: Black female, enjoyed comradery of her peers, unaware of her surroundings

Participated in Fieldtrip: 4

Joseph: Latino, grew up in Mexico, family owns a pool cleaning business, is about complete his associates in criminal justice, but wants to pursue a degree in biology because he likes science.
Participated in Fieldtrips: 1

Kitty: Black female, likes the outdoors, just not the elements of the outdoors such as heat and bug
Participated in Fieldtrips: 3 and 4

Kristin: Latina, she and her boyfriend Derek were experienced hikers and campers
Participated in Fieldtrip: 4

Kylie: Female; previous student of Professor Grey; hikes with her family;
Participated in Fieldtrip: 4

Laura: Latina; work hinders her ability to spend time outdoors; inexperienced; out of shape
Participated in Fieldtrips: 3 and 4

Leigh: Black female, three kids, three grandkids, is completing this class for general education credits so she can be a probation officer for juveniles. Believes learning begins in the home, and if you are not offered those experiences, it is your job to explore them when you are older
Participated in Fieldtrip: 2 and asked peers questions when they talked about their experience

Mario: Male, Family is from Afghanistan, enthusiastic, enjoys exercising and the outdoors.
Participated in Fieldtrips: 1

Matt: Ethiopian male; compares his experience on fieldtrips to his education when in Ethiopia.
Participated in Fieldtrips: 1 and 3

Michael: Ethiopian male; has lived in San Meadows for ten years; has never hiked or camped; promoted to participate due to extra credit.
Participated in Fieldtrips: 2 and 4

Nick: White male; father was a mountaineer; in excellent shape; has little experience being outdoors
Participated in Fieldtrips: 3 and 4

Samantha: Young, enthusiastic Black female
Participated in Fieldtrips: 1, 2, and 4

Sarah: White female, mother of two, 50-years old
Participated in Fieldtrips: 1 and 3

Tanya: Black female; never been hiking
Participated in Fieldtrip: 2

Tara: White female; fell and broke her nose on full moon hike
Participated in Fieldtrips: 2 and 3

Taylor: Latino, did not make it to the top of Mt. Chester, but was proud of his attempt and encouraged his classmates to try it
Participated in Fieldtrip: 1

Thomas: White male, just completed U.S. military contract; stayed behind with Tanya on the trail
Participated in Fieldtrips: 2

Tiffany: Ethiopian female; has lived in San Meadows for ten years; has never hiked or camped; prompted to participate due to extra credit
Participated in Fieldtrips: 2 and 4

Trevor: Asian male; did not want originally sign consent for audio recording because of concern that I would not understand him; proud he made it to the top of Mt. Chester
Participated in Fieldtrip: 1

Appendix D

Definitions, Corrected Correlations Coefficient (R), and Corrected Standard Deviation (SD) of Variables (from Hines et al., 1987).

Cognitive	Knowledge R=.299 SD= .195	Knowledge of the environment, some aspect of environmental issues, environmental problems and their consequences, knowledge of how to take action on particular, environmental problems (p. 3)
	Verbal Commitment R=.491 SD=.130	An expressed, not only verbally, intention to act upon specific matter, specifically an environmental problem (p. 5).
Psycho-social	Locus of Control R=.365 SD=.121	<u>External Locus of Control</u> : is a general concept which is not restricted to behavior in an environmental context. It represents an individual's perception of whether or not he or she has the ability to bring about change through his or her own behavior. This concept is based on the belief that some individuals do not attempt to bring about change because they attribute change to chance or to powerful others (e.g. God, parents, government) rather than to their own behavior. <u>Internal Locus of Control</u> : individuals believe their activities are likely to have an impact (p. 4).
	Attitude R=.347 SD=.224	Factors which dealt with the individual's feelings, pro or con, favorable or unfavorable, with regard to particular aspects of the environment, or objects related to the environment. This category included assessments of general attitude toward the environment or toward ecology, as well as more specific attitudes such as attitudes toward the energy crisis, attitudes towards unleaded gasoline, and attitudes toward taking environmental action (p. 4).
	Personal Responsibility R=.328 SD=.121	Individual's feelings of duty or obligation. This obligation was either expressed in reference to the environment as a whole (e.g., social responsibility, personal responsibility to help the environment) or in reference to only one facet of the environment (e.g., personal responsibility felt for reducing air pollution, for buy lead-free gasoline, for recycling) (p. 5)
	Economic Orientation R=.160 SD=.118	Individual's cost consciousness and concern about the economic impact of certain REB and environmental regulations. For examples provided include individuals who believe that lead-free gasoline saves money were significantly more likely to purchase it that were individuals who did not hold this economic belief (p. 5).
Demographic	Education Level R=.185 SD=.122	Finding provided a weak relationship between income and REB. However the size of the average correlation coefficient relative to the corrected standard deviation indicated the uncertainty of the relationship (p. 5)
	Age R= -.151 SD=.200	Younger individuals were slightly more likely to have reported engaging in REB than older individuals (p. 5 -6).
	Income R=.162 SD=.084	Found a weak relationship between income and REB (p. 5).
	Gender R=.075 SD=.084	There appears to be no relationship between gender and REB (p. 6).

Appendix E

Psycho-social Constructs (Bamberg & Möser, 2007)

Problem Awareness / Knowledge	In the field of pro-environmental behavior the awareness of and knowledge about environmental problems are probably important cognitive preconditions for developing moral norms (p. 15).
	Feelings of guilt, social norm, internal attribution, and problem awareness are all significant predictors of the moral norm construct (p. 16).
Attitude	The sum of perceived positive and negative consequences determines the global attitude toward a behavioral option. Attitude does not directly determine behavior but only indirectly via behavioral intention (p. 16).
	On average PBC, attitude, and moral norm can explain 52% variance of the intention construct (p. 21)
PBC	When forming their behavioral intention, people do not only take into account their attitudes toward this behavior but also estimate their ability to perform this behavior that is their perceived behavioral control (PBC) over it (p. 16).
	On average PBC, attitude, and moral norm can explain 52% variance of the intention construct (p. 21)
Social Norms	A perceived mismatch between one's own behavior and social norms leads to feelings of guilt. Besides their impact on feelings of guilt, social norms also directly contribute to the development of moral norms. They deliver the standards what behavior a social reference group view as appropriate in a specific context—that is what the group views as right or wrong. If an individual internalizes these standards they provide the content of her/his personal moral norms (p. 16)
	Social norms are viewed as a third factor influencing decision making. In the TPB framework a social norm is primarily conceptualized as perceived social pressure that is the expectations of significant reference persons to perform or not perform a behavior. Fear of social exclusion is viewed as a primary motive why people tend to fulfil social norms (p. 16).
	Frequently people follow social norms not because they fear social pressure, but because they use social norms as information about what behavior is appropriate. Thus, social norms may not only provide information whether a specific behavioral option is morally right or wrong but also whether it is beneficial or easy to perform (p. 17)
Moral Norm	Feelings of strong moral obligations that people experienced for themselves to engage in pro-social behavior.
	The formation as well as activation of a moral norm is probably based on the interplay of cognitive, emotional, and social factors...the awareness of and knowledge about environmental problems are probably important cognitive preconditions for developing moral norms (p. 15)
	On average PBC, attitude, and moral norm can explain 52% variance of the intention construct (p. 21).
Intention	Attitude does not directly determine behavior but only indirectly via behavioral intention (p. 16).
	When forming their behavioral intention, people do not only take into account their attitudes toward this behavior but also estimate their ability to perform this behavior that is their perceived behavioral control (PBC) over it (p. 16).
	Our MASEM results confirm empirically the hypothesis derived from the integrated model that behavioral intention mediates the association of all other psycho-social variables with pro-environmental behavior (p. 20).
	The hypothesis that PBC, attitude, and moral norm are independent predictors of intention is also confirmed. Together PBC, attitude, and moral norm explain on average 52% of variance of the intention construct (p. 20).
	On average, intention explains 27% variance of self-reported pro-environmental behavior (p. 21).
	On average PBC, attitude, and moral norm can explain 52% variance of the intention construct (p. 21)
Internal Attribution	The internal attribution of a harmful behavior often triggers emotional reactions, namely guilt (p. 16)
Feelings of Guilt	Guilt is defined as a “painful feeling of regret that is aroused when the actor actually causes, anticipates causing, or is associated with an aversive event.” Guilt is an important pro-social emotion because it results in a felt obligation (moral norm) to compensate for the caused damage. Feelings of guilt are also closely related with social norms. A perceived mismatch between one's own behavior and social norms leads to feelings of guilt

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Graduate Capstone: Volunteer Management: Analysis for the City of Las Vegas

B.S., Speech Communication, 2005
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EMPLOYMENT

National Park Service, Lake Mead National Recreation Area, NV
Aquatic Invasive Species Education Coordinator, May 2015 – present
Supervisory Visitor Use Assistant (Seasonal), 2012 - 2015
Interpretive Park Ranger Lead (Seasonal), 2011 - 2012
Interpretive Park Ranger (Seasonal), 2010

University of Nevada, Las Vegas, NV
Graduate Assistant- Department of Curriculum and Instruction, August 2012 – May 2015
Graduate Assistant- Public Lands Institute, January 2009 – August 2012

SPLORE, Salt Lake City, UT
Operations Manager, May 2006 - August 2008

TEACHING

Department of Teaching and Learning, University of Nevada, Las Vegas
Introduction to Elementary Education (undergraduate level)
Data Driven Decision Making (undergraduate level)
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INVITED TALKS & SEMINARS

Keynote Speaker: CHOLLA Symposium: Diversity and Inclusion in Education, Las Vegas, Nevada (March, 2016)

Webinar: Engage Diverse Audiences: National Park Service (July, 2013)

CONFERENCE PRESENTATIONS

Whitesides, H., Beck, J. S., Brown, N., Riddle, D. R., & Morgan, J. J. (2016, February). *An initial exploration into the beliefs and practices of teacher licensure candidates' data literacy*. Paper presented at the 28th annual Ethnographic and Qualitative Research Conference, Las Vegas, NV.

Whitesides, H. & Senegal, T. (2016, February). *Lake Mead NRA educates the public and develops future land stewards*. Paper presented at the 4th biennial Lower Colorado River Science Symposium, Las Vegas, NV.

Clark, C., Haddad, Z., Higley, K., & Whitesides, H. (2015, October). *Genderf*ck and other trans* boarder identity formations*. Paper presented at the 25th annual NAME National Conference, New Orleans, LA.

Higley, K., Whitesides, H., Haddad, Z., & Clark, C. (2014, November). *Genderf*ck and other trans* boarder identity formations*. Paper presented at the 24th annual NAME National Conference, Tucson, AZ.

PUBLICATION

Whitesides, H., Thom, T., & Smith, B. (2015). Managing the “new normal” at the Lake Mead NRA. *North American Lake Management Society: LakeLine*, 35(4), 29-33.