THE EFFECTS OF AN OUTWARD BOUND COURSE ON ENVIRONMENTAL ATTITUDES

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ABSTRACT

Little research has been done to understand how WEP's affect participant's environmental attitudes. This study surveyed participants from the North Carolina Outward Bound School (NCOBS) utilizing a retrospective mixed methods survey. Participants were asked to describe how their NCOBS course affected their environmental attitudes. The qualitative findings indicate that the majority of respondents experienced a change in their environmental attitude as a result of participating in an NCOBS course. Several significant themes were identified such as observing the beauty of nature, immersion in nature, following Leave No Trace Principles and the influence of their instructors. This study contributes to our understanding what course components can contribute to a positive change in environmental attitude among participants. The results of this study may be helpful to WEPs that wish to build a stronger environmental education curriculum and programming component.

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Table of Contents

List of Tables

CHAPTER 1.

INTRODUCTION

One of the oldest and most well-known Wilderness Experience Programs (WEPs) is Outward Bound (Friese, Hendee, & Kinziger, 1998; Hattie, Marsh, Neill, & Richards, 1997; Martin & Legg, 2002). Kurt Hahn founded the first Outward Bound School in Wales (Outward Bound International, 2016). The school was developed as a means to train young sailors to value physical fitness, compassion, and tenacity in difficult circumstances (Outward Bound, 2016). Over the years, Outward Bound has diversified its programs with these same values in mind (Outward Bound, 2016) and has evolved into a program that "prepares people to take on challenges and achieve more than they thought possible" (North Carolina Outward Bound, "About Us," 2016). Since the introduction of Outward Bound, WEPs have been on the rise (Hattie et al., 1997) and are diverse and widespread in their educational objectives (Attarian, 2001; Bobilya, Holman, Lindley, & McAvoy, 2010).

Much research has been done on the various course components of WEPs such as the student solo experience (Daniel, Bobilya, & Kalisch, 2006), student autonomy (Bobilya, Kalisch, & Daniel, 2011), self-efficacy (Ewert & McAvoy, 2000), and the instructor to participant interactions (Kalisch, 1999). Over the years there has been significant research on WEPs including studies investigating trends and practices on WEPs (Attarian, 2001; Bell, Gass, Nafziger, & Starbuck, 2014), WEPs as an industry (Friese et al., 1998) and WEPs within the field of Outdoor Adventure Education (Ewert & Sibthorp, 2014). At this time there seems to be little research investigating how these programs affect participant's environmental attitudes.

Previous studies indicate that WEPs have varying results on environmental attitudes. Much of the research on WEPs has been focused on programs involving short-term trips, typically five days or less. Additionally, the research has explored WEPs with various course objectives that range from formal curricula with a structured course format to informal experiences with more loosely planned trips. Lastly, the research has examined programs with different levels of instructor training which can have an impact on environmental attitudes (Gillet, Thomas, Skok, & McLaughlin, 1991; Hanna, 1995; McKenzie, 2003; Sibthorp, Furman, Paisley, Gookin, & Schumann, 2011). Because these studies are so varied regarding WEPs and environmental attitudes, there is a need for further exploration on how WEPs affect environmental attitudes.

Purpose

The purpose of this study was to investigate the effects of a 9-21-day open enrollment Outward Bound course on participant's environmental attitudes. The North Carolina Outward Bound School (NCOBS) has been chosen for this study because one of the program objectives is environmental service and the course length and student population meet the criteria for this study.

Definition of Key Terms

Wilderness Experience Programs are defined as "organizations that take paying customers into wilderness or comparable lands in order to develop their human potential through personal growth, therapy, leadership, and/or organizational development activities" (Friese et al., 1998, p. 40). This definition includes WEPs that have the f

following elements: “(a) Wilderness or backcountry settings; (b) small groups (usually less than 16); (c) assignment of a variety of mentally and/or physically challenging objectives, such as mastering a river rapid or hiking to a specific point; (d) frequent and intense interactions that usually involve group problem solving and decision making; (e) a nonintrusive, trained leader; and (f) a duration of 2 to 4 weeks” (Hattie et al., 1997, p. 44).

Environmental Attitudes is defined as “acquiring a set of values and concern for the environment and the motivation for actively participating in environmental improvement and protection” (UNESCO, 1978, p. 27).

Land Ethic is defined by Leopold (1996) as “the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land” (p. 258).

Landfull Framework, is defined by Baker (2005) as “being deeply aware of the environment, interpreting land history, sensing place in the present and connecting [the place] to home” (p. 271).

CHAPTER 2.

LITERATURE REVIEW

This literature review examines the current research on positive and negative effects that wilderness experience programs have on environmental attitudes. Additionally, this literature review explores how transfer of learning, instructor training, and trip length affect environmental attitudes.

Wilderness Experience Programs

The term WEP is just one of several names used to identify education based outdoor programs. Other names include: Outdoor Adventure Education (OAP) (Ewert & Sibthorp, 2014), Adventure Education (Priest & Gass, 2005), and Adventure Programming (Priest & Gass, 2005). No matter the term used, several things are common in the definitions: elements of risk (inherent to the activities), challenge, and a trained instructor (Ewert & Sibthorp, 2014; Hattie et al., 1997; Priest & Gass, 2005).

Since the introduction of Outward Bound into the United States in 1962, Wilderness Experience Programs (WEPs) have been gaining popularity, increasing in number, and diversifying their client base (Bobilya et al., 2010; Hattie et al., 1997). As a result, there are now many unique types of WEPs in the United States with each program having its own goals, trip lengths, and types of activities (Bobilya et al., 2010). Some examples of this program diversity include day trips in a nature club in which learning about ecology took place outside of the classroom (Brock, 2010), extended wilderness trips ranging 5-21 days in length (Haluza-Delay, 1999; Hattie et al., 1997; Simpson, 1985; Yoshino, 2005), and collegiate first year wilderness pre-orientation programs (Bell et al., 2014; Gass, Garvey, & Sugerman, 2003).

There has been significant research on the positive effects that wilderness experiences can have on participants. Some of those effects are increased leadership abilities (Hattie et al., 1997), improved self-esteem (Garst, Schneider, & Baker, 2001; Gass et al., 2003; Hattie et al., 1997; Kellert, 1998; Paxton & McAvoy, 2000), and development of critical thinking skills (Hanna, 1995; Kellert, 1998). Over the years WEPs have become an important part of American culture because of the diversity and the beneficial outcomes associated with these programs (Attarian, 2001).

Environmental Education

The term Environmental Education first appeared in 1968 (Disinger, 1985). Before the official term developed, environmental education was known as nature study, outdoor education, and conservation education, with each term having its own meaning (Disinger, 1985). However, a clearer definition emerged in 1969 in the first issue of the journal *Environmental Education* (Disinger, 1985). Stapp (1969) defined environmental education as "producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work toward their solution" (p. 34). Environmental Education (EE) programs can take place in many different ways, some of which are in-class programs, nature centers, and residential programs that vary in length from two-five days (Dettmann-Easler & Pease, 1999). As outlined by the Tbilisi Declaration, one of the focuses of EE programs should be to increase environmental attitudes among participants (UNESCO, 1978).

Environmental attitude can be defined as "acquiring a set of values and concern for the environment and the motivation for actively participating in environmental improvement and

protection" (UNESCO, 1978, p. 27). EE programs can be effective at enhancing students' environmental attitudes when combined with out-of-class experiences and in-class follow up work (Dettmann-Easler & Pease, 1999; Volk & Cheak, 2003). For example, one study showed that EE residential programs seem to be the most effective in helping students develop a positive environmental attitude (Dettmann-Easler & Pease, 1999). Additionally, there has been research on how students are affected when EE curriculum is integrated into the school systems (Carrier, 2009; Scott & Oulton, 1998; Volk & Cheak, 2003). These studies could help WEPs effectively develop curriculum surrounding environmental education.

From the time the definition of EE first emerged in 1969, the field of EE has expanded significantly including influencing national policy and creating guidelines for curriculum standards (Marcinkowski, 2010; Potter, 2010). As the field continues to grow, educators will have to find new ways to integrate EE into both formal and non-formal educational settings (Marcinkowski, 2010).

Wilderness Experience Programs and Environmental Attitudes

Although there is significant research focused on WEPs and environmental education programs, there appears to be less research on the positive and negative effects on how wilderness experience programs affect participant's environmental attitudes (Gillett et al., 1991; Haluza-DeLay, 1999).

Positive effects of WEPs on Environmental Attitude. Previous literature suggests that immediate surroundings or the environment in which the trip takes place can contribute to changing a person's environmental attitude (Baker, 2005; Chawla, 1999; Lippai, 2014). Some studies suggest that for a wilderness setting to change environmental attitudes, careful attention

must be paid to the surroundings, as well as developing a personal connection to nature (Baker, 2005; Lippai, 2014). Leopold (1966) defined this connection with the land as a "land ethic" and described it as "...the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land" (p. 258). Some researchers (Baker, 2005; Martin, Bright, Cafaro, Mittelstaedt, & Bruyere, 2009) have suggested that a land ethic, similar to that of Leopold, should be adopted to establish those personal connections in order to help change environmental attitudes. Baker (2005) describes this land ethic in more modern terms as having a "Landfull Framework" (p. 271). This framework consists of four components: "being deeply aware of the environment, interpreting land history, sensing place in the present and connecting [the place] to home" (p. 271). Adopting a land ethic with this Landfull Framework in mind challenges a student to become more intentional about interacting with their environment (Baker, 2005).

Another factor regarding WEPs that could affect environmental attitudes is instructor presence. Brock (2010) and Hanna (1995) examined the impact of instructor influence on participants and found that the connection participants had with their leaders had an effect on whether their environmental attitudes showed any change. This supports other studies that have been done on overall instructor influence within a WEP (Baker, 2005; Ewert & McAvoy, 2000; Kalisch, 1999; Martin et al., 2009; Simpson, 1985). Due to the isolated nature of wilderness and that the instructor is with the group for the duration of the trip, the role of the wilderness instructor holds a high place of influence within the group (Ewert & McAvoy, 2000; Kalisch, 1999). Kalisch (1999) identified the role of the instructor as being the most important and influential aspect of a wilderness program. Additionally, Kalisch (1999) points out that when

there is an established and trusting relationship between the participant and instructor, learning is both successful and positive. Instructors should keep this in mind when developing and teaching environmental education lessons.

Lastly, another important aspect of WEPs contributing to a change in environmental attitude is the quality of the experience (Gillet et al., 1991). The quality of experience in a WEP is based in part on the amount of planning involved and intentional curriculum that is incorporated into the trip (Gillet et al., 1991; McKenzie, 2003). Furthermore, the quality of experience is influenced by the type activities that take place on a course, both in timing and intensity (Gillet et al., 1991). It seems the results of many of these studies are not just pointing to one specific way of promoting a change in environmental attitudes, but suggesting that all of these aforementioned factors, must be taken into account.

Negative effects of WEPs on environmental attitude. Some studies indicate the environment in which wilderness programs take place merely becomes a backdrop for the intra- and interpersonal connections that are made by participants and that participants become desensitized to their surroundings throughout the course (Baker, 2005; Brock, 2010; Haluza-DeLay, 1999; Yoshino, 2005). In one study of a 12-day wilderness trip, participants created a group culture in which it was considered odd to pay attention to the environment (Haluza-Delay, 1999). This was attributed to group norms established throughout the trip in which the social aspect was deemed more important than the natural world. Participants who paid attention to the natural surroundings were often teased about it (Haluza-Delay, 1999). In that same study it was suggested that WEPs could be promoting an adversarial relationship due to the challenges that often occur on wilderness trips (Haluza-Delay, 1999). Some of the factors that create this

negative attitude are closely related to the direct experience that students are having throughout the trip, namely weather and terrain (Baker, 2005).

There have also been indications that wilderness trips actually cause disconnect from daily life (Baker, 2005). For example, participants may begin to see the wilderness as something that needs to be protected, while the environment in an urban setting is already beyond repair (Haluza-Delay, 1999; Lippai, 2014; Simpson, 1985). This suggests that wilderness trips may create a gap in participants' perceptions of the wilderness environment and the urban environment (Haluza-DeLay, 1999; Lippai, 2014; Simpson, 1985).

Haulza-DeLay (1999) found that some participants on a 12-day wilderness trip, did not gain a positive environmental attitude for nature within an urban environment, but rather desired the wilderness to be protected. This type of mindset can lead participants to want to protect only wilderness areas or places that are viewed as pristine, causing them to disregard and even abuse natural areas in the urban setting, possibly even deeming them beyond repair (Lippai, 2014). It is this mindset that instructors must work to change in order for a positive environmental attitude to develop among their participants during a wilderness course (Haluza-Delay, 1999; Lippai, 2014; Simpson, 1985).

While WEPs have been successful at improving students' ability to learn environmental education materials (Gillet et al., 1991; Hanna, 1995), the research indicates that they are not as successful at improving environmental attitudes (Gillet et al., 1991; Hanna, 1995). This lack of change could be attributed to trip length, quality of the trip and the instrument used to gauge environmental attitudes (Hanna, 1995).

Transfer of Learning in WEPs

Transfer of learning, a key component of WEPs, focuses on what students' learn during their trip and how, or if, they apply it to their everyday lives and future pursuits (Gass, 2008). Additionally, WEPs rely on the transfer of learning within wilderness course components for the success and longevity of the program (Gass, 2008). Instructors must also be intentional about their course curriculum and plan activities that will help students connect what they learn during the wilderness trip to life at home (Gass, 2008). There has been much research focused on transfer of learning within a WEP and how various course components influence transfer of learning. Some examples of these course components are the student solo experience (Angell, 1994; Daniel et al., 2006; Knapp & Smith, 2005) and student autonomy (Bobilya et al., 2011; Sibthorp et al., 2008). However there seems to be less known about how students transfer their environmental attitudes from a WEP to nature within an urban environment. It seems that this needs to be explored further considering how important transfer of learning is to a WEP.

Impact of WEP Instructor Training on Environmental Attitudes

Research indicates that some instructors believe that a participant's environmental attitude changes automatically as a result of being in the wilderness (Baker, 2005; Haluza-Delay, 1999; Simpson, 1985). It is important that instructors work to change this belief in order to aid in developing a positive environmental attitude among participants. Additionally, Baker (2005), Martin et al. (2009) and Simpson (1985) recognized that instructors must hold their own personal environmental ethic and need to help participants make personal connections between nature in the urban setting and the environment where the trip takes place. Simpson (1985) also pointed

out that, while instructors may hold a high environmental ethic, they must recognize that students participating in a WEP may not adopt a similar environmental ethic during the trip.

While these recommendations on how instructors can be more intentional about cultivating positive environmental attitudes are important, several other things need to be done. It has been suggested that instructors should have training on how to teach and develop lessons about the environment (Simpson, 1985), hold an ecological knowledge of the area, and be able to connect those ecological concepts to nature in an urban setting (Hanna, 1995), and develop activities that provides students with a point of reflection about their experience within the environment (Brock, 2010). Additionally, the literature suggests that programs should have a well-planned curriculum with strong objectives aimed at improving environmental attitudes in order to aid instructors throughout the course (Gillet et al., 1991; Hanna, 1995; McKenzie, 2003).

Effects of Trip Length on Environmental Attitudes

At this time there appears to be a small body of literature related to WEP trip length and its relationship to changing environmental attitudes in participants. During one study with students participating in a six-day wilderness trip, little change in environmental attitudes was found (Gillet et al., 1991). The results of that study, which utilized a quantitative questionnaire about environmental knowledge and attitude, seemed to indicate that trip length had little effect on environmental attitudes (Gillet et al., 1991).

Another study that examined trip length compared two groups of students found that students on a three-week trip experienced decreased feelings towards the environment or less of a desire to care for nature, whereas the students on the five-day trip had no change in

environmental feelings one way or another (Yoshino, 2005). Yoshino (2005) defines environmental feelings as "emotional and affective attitudes about environmental destruction" and were measured with the Environmental Awareness Questionnaire. These decreased feelings on the long-term trip could be attributed to exposure to difficult weather, hard physical challenges and difficult group dynamics (Yoshino, 2005). Although there were decreased environmental feelings in one group, there were no noticeable changes in environmental attitude between the two groups. It appears the effect of trip length on environmental attitudes can be varied and, at times, contradictory (Simpson, 1985).

Some literature suggests that WEPs may not be a factor in developing positive environmental attitudes, but rather multiple positive interactions within nature throughout childhood (Chawla, 1999; Ewert, Place, & Sibthorp, 2005), as well as unstructured playtime in nature (Arnold, Cohen, & Warner, 2009). This is not to say that WEPs have no influence. For example, Arnold and associates (2009) found that outdoor trips were seen as important experiences for forming positive environmental attitudes for students who did not have opportunities for nature play in early childhood.

Although there is significant research focused on WEPs, there appears to be less research on how wilderness experience programs affect participant's environmental attitudes. The literature seems to indicate that WEPs are not as effective at promoting a positive environmental attitude in participants as most instructors initially think. However, this does not mean that the qualities that a person needs to form a positive environmental attitude are not being enhanced, such as decision-making and internal locus of control (Hanna, 1995). The literature does point to the need for more research on WEPs to determine if those experiences can or do affect

participant's environmental attitudes. Additionally, it also points to a need for a more specific way to measure how those attitudes are being affected. Therefore, the purpose of this study was to investigate the effects of an Outward Bound course on participant's environmental attitudes.

CHAPTER 3.

METHODOLOGY

This study investigated the effects of an open enrollment Outward Bound wilderness course experience on participant's environmental attitudes. A mixed-method design, consisting of collecting both quantitative and qualitative data was used (Creswell, 2014). Quantitative designs seek to test theories posed by the researchers and then correlate those variables to the research (Creswell, 2014). Qualitative designs seek to understand social problems and how groups or individuals relate to them (Creswell, 2014; Mack, Woodsong, MacQueen, Guest, & Namey, 2005). A mixed-method approach combines these ideas and "may involve philosophical assumptions and theoretical frameworks" using the data collected (Creswell, 2014, p. 4). In the past, the general approach for data collection on WEPs has been surveys with quantitative and qualitative questions (Bobilya, Kalisch, & Daniel, 2014; Garst et al., 2001; Martin & Legg, 2002) and/or follow up interviews with participants (Holman & McAvoy, 2005; Paxton & McAvoy, 2000). For this study, a mixed-method approach utilizing a survey with quantitative and qualitative questions was chosen.

Role of the Researcher

The researcher has been a wilderness instructor for five years and currently works for the North Carolina Outward Bound School. Additionally, the researcher led three open enrollment courses for NCOBS during the summer of 2015. Because of her profession and work history with NCOBS, the researcher recognizes there is potential for bias. In order to account for this, those courses in which the researcher was an instructor on were excluded from the study. The researcher worked with two independent inter-coders to analyze the qualitative data who were

not connected to NCOBS, which helped to eliminate bias. The independent inter-coders coded 100% of the data in order to reach an minimum agreement of 80% by the researcher and inter-coders (Creswell, 2014).

Program

Outward Bound has schools located in 30 countries around the world and serves roughly a quarter of a million people annually (Outward Bound, 2016). This study was conducted in partnership with the North Carolina Outward Bound School (NCOBS) in January –August of 2017. NCOBS attracts students from a variety of backgrounds, ethnicities and social classes and regularly offers long-term WEP courses (9-21 days in length) in the summer. This study investigated open enrollment courses, which are defined as courses in which students enroll as an individual and in course area and trip length of their choice. These open enrollment courses included some or all of the following components: rock climbing, white water canoeing, challenge course, solo, community service, a personal challenge event and a backpacking expedition. Each open enrollment course is different and participants can pick these courses based on their interest.

Population

The majority of the student population that enrolls in the North Carolina Outward Bound School courses are youth ages 14-18. Additionally, NCOBS serves the most students during the summer months. In 2015, NCOBS served 4,523 students and out of that number, 623 students participated in open enrollment summer courses (NCOBS, "Program," 2016). The target population for this study was youth ages 14-18 who participated in an open enrollment course of 9-21 days in length during the summer of 2015.

Sample

Participants were selected based on a criterion sampling method (Patton, 2015) using the following criteria: Participants must have completed a 9-21-day, open-enrollment NCOBS course during June - August 2015 in the mountains of North Carolina. Additionally, participants must have provided consent on their pre-course forms to participate in future studies in order to be eligible for this study (Appendix A). The sample consisted of both male and females. Lastly, this sample year was chosen because participants completed the course more than a year ago, which helped to measure any latent changes in environmental attitudes.

Instruments

The survey for this study consisted of four qualitative questions and two quantitative questions. The two quantitative questions were taken from the North Carolina Outward Bound Course Impression Survey (NCOBSCIS) (Appendix B) that each student completes at the end of their course.

At the start of the survey a definition of environmental attitudes was displayed to provide context for participants. The Tbilisi Declaration (UNESCO, 1978) defines environmental attitudes as "set of values and concern for the environment and the motivation for actively participating in environmental improvement and protection" (p. 27). Participants began the survey by answering four qualitative questions, which are:

1. Has your environmental attitude changed as a result of taking an NCOBS course? If so, how has it changed? (e.g., I now pick up litter that I see on the ground)
2. Please describe why you believe your attitude did or did not change as a result of your NCOBS course.

3. If your environmental attitude changed, what aspects of the course helped change your environmental attitude?
4. Are you more concerned about the environment and have motivation to protect it as a result of participating in an NCOBS course? If so how?

At the end of the survey participants were asked to identify what course components they took part in during their NCOBS course (i.e., rock climbing, backpacking and canoeing). This information may be helpful in understanding more fully what components do or do not affect environmental attitudes. Survey respondents were also asked to name any other outdoor programs they may have participated in after their NCOBS course.

The two quantitative questions on the survey are pulled from the NCOBSCIS (Appendix B). After the completion of each course students are asked to complete the NCOBSCIS. The NCOBSCIS is based on the Outward Bound Outcomes Instrument (OBOI) and has been modified to meet the educational goals of NCOBS and has been tested and found to be a valid and reliable instrument (Faircloth & Bobilya, 2013). The NCOBCIS survey questions are rated on a seven point Likert type scale. There are two questions on NCOBSCIS that are related to environmental attitude which are:

1. I take responsibility in caring for the environment.
2. I respect and feel a connection to nature.

Both questions point to a care or concern for the environment, the first step towards developing an environmental attitude (UNESCO, 1978). The first question indicates motivation to care for the environment, a key part of environmental attitude (UNESCO, 1978). The second question points to concern for the environment, another key component for a positive environmental

attitude (UNESCO, 1978). For this research study, students were asked to complete the same two questions from the NCOBSCIS a year after their course. Responses from the original survey and the new survey were then compared.

Materials

Participants were contacted via Survey Monkey and through email. A total of six emails (Appendix D) regarding the survey were sent over a period of 12 weeks. Upon completion of the survey, participants were entered to win a prize drawing and two winners were randomly selected. The prize for each winner was an NCOBS water bottle and Outward Bound headwear. Providing an incentive to complete the survey has been shown to increase the likelihood that participants will respond (Dillman, Smyth, & Christian, 2009).

Data Collection

This study utilized responses from participants who met the criteria as outlined above. Only responses from questions six and nine were used (Appendix B) from NCOBCIS for this study.

Stage one. The first stage of this study was to examine the data from the two questions related to environmental attitude (questions six and nine) collected on the open enrollment in the mountains of North Carolina during the summer of 2015. The researcher has obtained permission from NCOBS to access these specific survey responses (Appendix C).

Stage two. The second stage of data collection for this study took place starting in January 2017. Participants that met the criteria for this study were contacted via the online survey platform, Survey Monkey. The first notice was an announcement about the study, which alerted participants to the survey, information about how the survey will be taken and the link for

the survey. A total of two survey reminders were sent through Survey Monkey to remind participants to take the survey and reiterate the closing date of the survey. The original survey closing date was February 13, 2017. Due to limited responses, the survey period was extended three more times to allow more time for participants to respond. Because the Survey Monkey notices only yielded 17 responses, participants were emailed individually from the researcher's school email account with two more email reminders and a link to the survey. The sixth email was a final notice sent individually to participants to take the survey as well as a final closing date of the survey. The final closing date of the survey was April 14, 2017. Utilizing this strategy had the possibility to increase survey participation because response time was limited and people tend to respond more to surveys that have a limited time frame (Dillman et al., 2009). Participants completed the survey using an online survey platform called Survey Monkey.

Research Design

Students took the NCOBCIS at the end of their course in 2015 and those same students answered two of the questions from the NCOBCIS a year and a half later, therefore this study is longitudinal (Creswell, 2014). A longitudinal design is uncommon within WEPs (Ewert & Sibthorp, 2014) and this study could help contribute to longitudinal research on WEPs.

Data Analysis

The post 2015 and follow up 2017 scores showed no correlation. Therefore no analysis was run on the quantitative results.

The qualitative questions were coded in order to identify themes that emerged from the answers given by participants. Coding is a way of organizing the data into different categories in order to convey findings more concisely (Creswell, 2014). After the initial coding took place by

the primary researcher; two independent inter-coders coded 100% the data gathered from the surveys. Using independent inter-coders helped to ensure the reliability of the coding of the survey data. Initially, there was a 70% agreement on the original code list for the qualitative data. Codes were then refined to more accurately describe the responses and a 95% agreement rate was reached between the two intercoders and the researcher. The codes were then collapsed into themes and reported with representative quotes. Lastly, the results of this study were discussed in light of the existing literature and an interpretation of the data (the quantitative, qualitative data, representative quotes and interviews) was made to help identify what was learned from the study. The qualitative survey data was used to help provide a deeper context for the quantitative survey results for this study.

CHAPTER 4.

RESULTS

This study investigated the effects of a North Carolina Outward Bound course on participant's environmental attitudes. Participants who were selected for this survey completed an NCOBS open enrollment course in the summer of 2015. The participants were contacted via Survey Monkey and through email to participate in the survey. Each respondent was asked to answer thirteen questions. Respondents were asked two of the questions from the 2015 NCOBSCIS (Appendix B). Their response from 2015 was then compared to their new responses. Not all of the open-ended questions were answered by the 27 respondents.

Demographics

In 2015 there were 157 students who participated in NCOBS open enrollment courses in the North Carolina mountains course area. Of the 157 participants, 96 indicated consent to participate in future studies. Those participants were contacted to take the survey for this study via Survey Monkey. Two participants opted out of the survey and 27 responded for a 33% response rate. The gender and race/ethnicity of the respondents is displayed in Table 1 and the age range of the participants is displayed in Table 2.

Table 1

Demographics of Survey Respondents

Gender	No. of Respondents	Race/Ethnicity	No. Respondents
Male	6	African American	4
Female	20	Hispanic or Latino	4
		White/Caucasian	19
		Other	1
		Prefer Not to Answer	1

Note. N=27

Table 2

Age Range of Participants

Age	No. Of Respondents
14	1 (3%)
15	9 (33%)
16	11 (40%)
17	3 (11%)
18	1 (3%)
Prefer not to answer	1 (3%)

Note. N= 27

Course components. At the end of the survey, respondents were asked to provide basic information about their NCOBS course including trip length and course activities. Of the respondents twenty-one day open enrollment participants made up the majority of survey respondents (Table 1). Respondents indicated that they all had participated in backpacking during their course and the other activities varied in participation due to course length and course structure (Table 3). For example, respondents who participated in a 21-day open enrollment

course would have participated in almost all of the course activities whereas respondents on a nine-day open enrollment course may have only participated in a few of the course offerings.

Table 3

Course Activity and Length

Course Length	No. of Respondents	Activities	No. of Respondents
9 Day	5 (18%)	White Water Canoeing	20 (74%)
14 Day	6 (22%)	Rock Climbing	22 (81%)
21Day	16 (59%)	Backpacking	27 (100%)
		Challenge Course	4 (14%)
		Solo	26 (96%)
		Final Expedition	3 (11%)
		Personal Challenge Event	18 (66%)
		Service Project	20 (74%)

Note. N=27

Influences on Environmental Attitude Change

At the start of the survey respondents were asked if they believed that their environmental attitude changed as a result of their NCOBS course. The respondents who indicated that their attitude did change were also asked how it changed as a result of their NCOBS course. Respondents were then asked to provide specific examples as to why they believed their attitude did or did not change. Of the 27 respondents, 88% of them reported that their environmental attitude positively changed. The majority of the respondents attributed gaining a greater appreciation for nature, which positively changed their attitude. The following responses highlight the participant's perceptions of how their NCOBS course changed their attitude:

- "I believe that it did change because I was living so closely with nature and seeing so much of its beauty and its components throughout my course." (14-day, 15 year old, Female)
- "I have a much stronger appreciation for earth now that I've lived completely in the wilderness for two weeks." (14 day, no age provided, Female)
- "It has changed the way I look at the world and how I appreciate nature more now than then." (14-day, 15 year old, Female)

Course Components Affecting Environmental Attitude

Those respondents who reported a change in environmental attitude were asked to provide specific aspects of the course that led to a change in attitude. Respondents who indicated a change in environmental attitude were asked to identify what course components contributed to their change in environmental attitude. There were four main course components that the majority of the respondents identified when asked to reflect back on their NCOBS course. Those four components were: immersion in nature, following Leave No Trace Principles, course activities (canoeing, backpacking climbing etc.), the beauty of nature, and instructor influence (Table 4). Table three lists the influential course components in order of response rate and corresponding representative quotes.

Table 4.

Course Components Attributed to Positive Environmental Attitude Change

Course Component	**No. Responses**	**Quotes**
Immersion in Nature	11 (40%)	"I think that just being surrounded by nature all the time and living in it really gave me a chance to see the importance of the environment,

		and heighten my previous attitude." (21-day,15 year old, Male)
Beauty of Nature	9 (33%)	After NCOBS, I realized how we are all so materialistic. We think we need phones, machines, etc. to have a good life or to get around. But I realized how beautiful nature is and how crucial it is to be respectful to the environment because the environment has given us so much." (21-day, 15 year old, Female)
Course Activities	8 (29%)	"The last couple days that we were on final were the most changing also finishing the multi-pitch and looking out over the valley" (21 days, 15 year old, Male)
Following LNT	8 (29%)	"On my NCOBS trip, we were so meticulous about LNT principles, and I feel that it allowed me to realize how if each person puts a little bit of effort in, then together we can positively affect the environment." (21-day, 15 year old, Female)
Instructor Influence	7 (26%)	"The instructors always gave me tips on small changes I could make in my daily life to protect the environment. During my NCOBS course I valued being connected to my environment and planned to always remember the value throughout my life." (9-day, 17 year old, Female)

Note. N=27

Description of Course Components

The following is a description of the course components that had the most influence on respondents' change in environmental attitude. It should also be noted that some respondents identified multiple course components that contributed to their change in environmental attitude. Each course component is described using respondents' quotes from the survey.

Immersion in nature. In this study immersion in nature was used to code any responses that mentioned living in nature or the course length itself. When asked what aspects of an NCOBS course that led to a change in environmental attitude, 40% of the respondents reported that it was due being immersed in nature, as this response demonstrates:

- "I've always been environmentally aware but then actually living in the woods and growing to appreciate all that nature did for us make me a lot more aware of my environmental impact." (14-day, no age provided, Female)

Several participants mentioned the course length itself as being a contributing factor to their attitude change, as this response shows:

- "…Living outdoors for 3 weeks helps you appreciate and enjoy nature." (21-day, 16 year old, Female)

Beauty of nature. Another influential component of the course was experiencing the beauty of nature. Different than immersion in nature, respondents describe the scenery, views and pristine nature of the environment in a wilderness setting as what influenced them to change their environmental attitude. This response demonstrate the influence of this course component:

- "I gained an appreciation for the vastness and delicacy of nature, and the apparent need to take care of it to maintain that beauty and all the life that it holds." (21-day, 15 year old, Female)

Thirty-three percent of respondents described a feeling of responsibility to care for the environment as a result of experiencing the beauty of nature. As this response demonstrates:

- "I think my attitude changed because I went from California, which was and still is in an extreme drought, to North Carolina. In CA, there's very few places where you can

> go to get a clear view of greenery, rather than just dead grass and plants that have been dried out. However, in NC, it felt as if it was impossible to avoid the beautiful scenery around me, which made the destruction of our environment so much more personal to me." (21-day, 14 year old, Female)

Course activities. 29% of respondents pointed to various course activities that influenced a change in their environmental attitude as this response shows:

- "Canoeing on the clear water made me realize that there aren't many large bodies of fresh water that are that clear. I am definitely more concerned about the pollution with fresh water" (9-day, 16 year old, Female)

The course activities vary according to course length and course offerings. All 21-day mountains courses have the following components: backpacking, rock climbing, canoeing, solo, day of service, and a personal challenge event. The fourteen-day and nine-day courses have the following: backpacking, solo, day of service, rock climbing or canoeing, and a personal challenge event.

Following Leave No Trace. 29% of respondents indicated that following Leave No Trace Principles influenced a change in their environmental attitude. Many of the respondents who described LNT as being influential explained that following the LNT principles led them to change their environmental attitude as this response demonstrate:

- "Though the service part did make me aware of the importance of helping out, the way we would clean up after ourselves and leave no trace really was what changed my perception on our relationship with natural environments." (21-day, 16 year old, Male)

Instructor influence. 26% of respondents named instructor influence as a factor that led to a change in environmental attitude. Several respondents describe the instructors as passionate about the environment, providing guidance on things like LNT and how to interact positively with the environment. This response is a representation of instructor influence as described:

- "Our instructors were really passionate about protecting the environment and they transferred their enthusiasm to us. We practiced Leave No Trace and learned to respect the earth. Although I have always been taught to respect the earth, having such a personal relationship with nature led to me feeling a lot more inclined to protect our earth." (14-day, no age provided, Female)

Pro-Environmental Behavior as a Result of Attitude Change

Respondents were asked if they felt more concerned about the environment and had motivation to protect it as a result of participating in an NCOBS course. Twenty-one respondents reported that did feel more concerned and motivated to protect it and six said no they did not.

Pro-environmental behavior as described by the respondents. Fifteen respondents provided descriptions as to what ways they felt more concerned and motivated to protect the environment and twelve chose not to answer. In total, 55% of respondents often described feelings of a responsibility to care for their environment as a result of experiencing the beauty of it, being immersed and following LNT during their NCOBS course. This feeling was often described as what led them to implement pro-environmental behaviors in their personal life after their course. Respondents identified several easily implemented pro-environmental behaviors in daily life such as: picking up litter, recycling, and turning lights off. Respondents also indicated

that teaching others about the environment, volunteering their time to an environmental organization and donating money to conservation efforts as pro-environmental behaviors resulting from their NCOBS course (Table 5). Table five lists the pro-environmental behaviors described in order of response rate with representative quotes.

Table 5

Pro-Environmental Behaviors

Pro-Environmental Behavior	**No. Respondents**	**Quotes**
Trash and Recycling	6 (40%)	"I constantly insist on others not to litter on the ground. I usually pick up trash from the ground if I see it." (21-day, 15 year old, Female)
Resource Conservation	5 (33%)	"I take shorter showers, I recycle, and conserve energy by turning off unnecessary electricity." (21-day, 16 year old, Female)
Teaching others about Caring for the Environment	5 (33%)	"Teach people about the ideas I learned because of Leave No Trace." (21-day, 15 year old, Female)
Volunteering Time/Giving Money to an Environment/Conservation Organization	2 (13%)	"I helped the Hill Country Conservancy campaign to build a new hike and bike trail called the Violet Crown Trail. Also I have tried to be more involved with them." (21-day, 15 year old, Male)

Note. N=15

Quantitative Question Results

Results from the post and follow-up survey scores showed no correlation; therefore any subsequent analysis was not warranted. It is for this reason that the results of this study are will present the qualitative findings.

The qualitative results seem to indicate that participation in an NCOBS course has the potential to change participant's environmental attitudes in a positive way. An interpretation of the themes that emerged from the qualitative responses will be discussed in Chapter 5.

CHAPTER 5.

DISCUSSION

The purpose of this study was to investigate the effects of an Outward Bound course on participant's environmental attitudes. The findings of this study show that participating in a wilderness experience program (WEP) can change participant's environmental attitudes in a positive way; specifically through being immersed in nature, following Leave No Trace Principles and enjoying the beauty of nature. This study adds a distinctive look at course activities as being contributing factors to changing participant's environmental attitudes on a WEP. Additionally, it provides a new perspective on participant's views of the environment by asking them to reflect on their course experience two years ago.

Immersion and the Beauty of Nature

The qualitative responses indicated that a majority of the respondents believed that their environmental attitudes changed because of participating in an NCOBS course. Most of those respondents attributed this change to being immersed in nature and appreciating the beauty of nature which is consistent with findings from previous studies (Varnell, 2016; Kellert,1998). This also supports Baker (2005) and Lippai's (2014) conclusions that students must create a connection with the environment in order to change their environmental attitude.

Additionally, the feeling of responsibility among respondents affirms studies (Baker, 2005; Martin et al., 2009) that concluded that adopting a land ethic, similar to that of Leopold (1966), was a driving factor leading to a change in environmental attitudes. According to the findings of this study, it appears that when participants are given the time and opportunity to

observe the beauty of nature and are immersed in nature, a lasting positive change in environmental attitudes can occur.

Trip length. This study surveyed students who participated in WEP courses nine-days or longer and the majority of respondents were 21-day course participants. Forty percent of the all the respondents attributed their change in environmental attitude to the course length (immersion in nature, see Table 3). Additionally, this component was mentioned repeatedly throughout the open-ended survey questions as this response demonstrates "…Living outdoors for 3 weeks helps you appreciate and enjoy nature." Additionally, 100% of the 21 day participants indicated that their environmental attitude changed and 75% of them felt more concern and motivation to protect the environment. This is different from Yoshino's (2005) findings that showed that students on a three week trip had decreased feelings about the environment or less of a desire to care for the environment. Overall 80% of the 9-day, 83% of the 14-day and 100% of the 21-day respondents indicated that their environmental attitude did change as a result of participating in an NCOBS course.

Connections to Urban Environment

The majority of respondents (80.8%) indicated that they felt more concern and a motivation to protect the environment as a result of their NCOBS course. Many of the respondents also identified several ways they were taking action to care for the environment in their own lives. This is contrary to some studies (Haluza-DeLay, 1999; Lippai, 2014; Simpson, 1985) that seemed to indicate that WEPs could be causing a gap between the urban setting and wilderness setting. Many of the respondents attributed taking action in the urban setting as a result of following Leave No Trace while on their NCOBS course as well as instructor influence.

This also supports Brock (2010) and Hanna (1995) who found that a positive instructor to participant relationship had an impact on environmental attitudes. These responses came as no surprise given the many studies on overall instructor influence on participants (Baker, 2005; Ewert & McAvoy, 2000; Kalisch, 1999; Martin et al., 2009; Simpson, 1985; Varnell, 2016). These results affirm instructor influence and adds to continuing research regarding instructor influence on participants environmental attitudes in a WEP setting.

Limitations

This study demonstrates that WEPs can have a positive effect on participant's environmental attitudes. However, there are several limitations to this study. The two quantitative questions that were taken from the NCOBSCIS showed no correlation between the post and follow-up results, which raises questions about the relationship between post and follow-up scores. Another limitation of this study is that all of the survey respondents were taken from one Outward Bound program and it was a small sample size (n=27). Another study surveying students from several programs and with a larger sample might produce more generalizable results. Lastly, a potential for bias was present in this study as the researcher worked for NCOBS as an instructor for three years.

Recommendations for Future Research

There is much more that could be understood about how WEPs affect participant's environmental attitudes. The following are potential areas of study for future research.

1. Researchers could examine the Leave No Trace curriculum specific instructors are teaching during WEPs and related course outcomes.

2. This study points to a need for a survey instrument that addresses the impact of WEP participation on environmental attitudes.
3. This study did not include any survey responses from instructors regarding their own environmental attitudes, their perceptions of participant environmental attitudes and the curriculum taught on courses. This type of research could provide more understanding as to how participant's environmental attitudes are understood and shaped by instructors.
4. This study could be replicated with other WEPs in order to provide a broader understanding of how WEPs affect environmental attitudes.

Recommendations for Practice

There are several influential course components as discussed by the respondents, which helped to change their environmental attitudes. The following recommendations are based on those components as described by the respondents in this study.

1. WEPs should provide instructors with environmental lessons or Leave No Trace curriculum, if they are not already doing so.
2. Instructors should provide their participants ample time to enjoy the beauty of nature and encourage them to observe their surroundings
3. LNT principles should be practiced regularly throughout the WEP course and an emphasis placed on how those principles might connect to life back at home for the participants.

Conclusion

This study shows that WEPs have the ability to positively influence participant's environmental attitudes. The majority of the respondents reported that their environmental attitude did change and expressed more motivation to care for the environment as a result of participating in an NCOBS course. This change was attributed to being immersed in nature, enjoying the beauty of nature, following LNT principles and instructor influence. While NCOBS has a goal of affecting participants environmental attitudes it was not fully known as to what extent or how that goal was being achieved. This study provides more insight as to how that takes place and contributes to ongoing studies about WEPs and environmental attitudes.

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Appendix A

NCOBS Pre-course Consent Forms for Participants

RETURN

NORTH CAROLINA
OUTWARD BOUND SCHOOL

CONSENT FORM AND PRE-COURSE IMPRESSION

You have applied for a course with the North Carolina Outward Bound School (NCOBS). As part of your application process, we ask that you complete a pre- and post-course impression. Your responses from your course impressions help us evaluate our programs and may be used in a study of outcomes regarding our curriculum.

The survey conducted by Whitney H. Montgomery, Executive Director of NCOBS, will be in cooperation with Dr. Andrew Bobilya, NCOBS instructor and Associate Professor of Parks and Recreation Management at Western Carolina University.

PROCEDURES

Please read this form and sign where indicated then answer the 20 questions on the pre-course impression. If you are under 18 years of age, a parent/guardian must also sign. This process should take less than 10 minutes of your time. Return both completed forms along with your other required forms. Towards the end of your wilderness experience, you will be asked to complete a post-course impression. Both your completed pre-course impression and post-course impression will help us determine the impact Outward Bound is having on our course participants.

NCOBS is also interested in conducting a long term, longitudinal study in which we will contact course participants a number of years following their course completion. The purpose of such a study would be to measure the lasting impact of an Outward Bound course on participants.

Please check the box if you are willing to participate and be contacted if such a study were to be conducted.

☐ I am willing to participate

CONFIDENTIALITY

The responses of your course impressions will be shared with NCOBS and among the study team and its assistants. Any study of outcomes we publish will not include any information that will make it possible to identify a course participant.

STATEMENT OF CONSENT

I have read the above information. I consent to my participation. Parent/guardian name and parent/guardian signature are required for students under 18 years of age.

Student Name:_____ Age:_____ Course Number:_____

Appendix B

NCOBS Post Course Impression Survey

NORTH CAROLINA
OUTWARD BOUND SCHOOL

Course Impression

Course impressions help us evaluate our programs. Please remember that this is not a test; there are no correct or incorrect answers and everyone will have different responses. Do not leave any statements blank. Your responses may be used in a study of outcomes regarding our curriculum.

Name: _____ **Gender:** ☐ **Male** ☐ **Female** ☐ _____ **Today's Date:** _____

Course #: _____ **Course Length:** _____ **Age:** _____ **I received scholarship support:** ☐ **Y** ☐ **N**

Ethnicity: ☐ Black or African American ☐ Hispanic or Latino ☐ Native Hawaiian or Pacific Islander ☐ _____
☐ White/Caucasian ☐ Asian ☐ American Indian or Alaska Native

Please rate the following statements by circling a number from 1-7 using the scale below.

Before completing my course, I felt: *strongly disagree … neutral … strongly agree*		**After completing my course, I feel:** *strongly disagree … neutral … strongly agree*
1 2 3 4 5 6 7	1). I can accomplish most things I set my mind to.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	2). Community service is important to me.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	3). I am motivated to set and accomplish goals for my education or for my career/life.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	4). I have a sense of direction and purpose in my life.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	5). I am able to work productively with others.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	6). I take responsibility in caring for the environment.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	7). I am sensitive to the needs and feelings of others.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	8). I listen when people talk to me.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	9). I respect and feel a connection to nature.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	10). I have a personal committment to physical fitness.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	11). I find peaceful solutions to conflict.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	12). I feel proud of myself.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	13). I am flexible in my thinking and ideas.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	14). I contribute when I work in a group.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	15). I realize my potential.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	16). I help others when they need it.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	17). I balance the time I spend on work/school and leisure time.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	18). I recognize that others may be different from me.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	19). I deal well with unexpected events.	1 2 3 4 5 6 7

Appendix C

Permission letter for Research from NCOBS

November 8, 2016

Dear Intuitional Review Board of Montreat College,

Sara Briley has permission from the North Carolina Outward Bound School (NCOBS) to conduct research on "How Outward Bound Courses affect participants Environmental Attitudes" using data from the 2015 summer course participants. This study will contribute to NCOBS ongoing research efforts to understand how NCOBS courses impact participants. Sara's research will be guided by the research team (Dr. Brad Daniel and Dr. Andrew Bobilya) for which she will be acting as an assistant. The participant files will be kept at the North Carolina Outward Bound office in Asheville, North Carolina.

Sincerely,

Whitney Montgomery
Executive Director
North Carolina Outward Bound School

Deb Sweeny Whitmore
Director of Program Operations
North Carolina Outward Bound School

Appendix D

Emails to Participants

Initial Contact Email (Sent through Survey Monkey)

Subject Line: NCOBS Alumni we need your help

Body:

Dear NCOBS Alumni,

My name is Sara Briley and I am a graduate student at Montreat College in North Carolina. I am working with the North Carolina Outward Bound School. I am conducting a follow up study on the NCOBS post course impression survey that you completed at the end of your course. You are being contacted because you indicated that you would be willing to participate in future studies with NCOBS.

I am inviting you, as NCOBS alumni, to participate in a 10 minute survey. Your feedback is valuable and will be used to help improve NCOBS courses in the future.

Your responses will be kept completely confidential. At the completion of this survey you will be entered to win an Outward Bound water bottle and Outward Bound headwear. There is limited time to be entered into the drawing. Complete the survey by February 13th, 2017to be entered to win.

Thank you for taking time to complete the survey,

Sara Briley

Candidate for Masters of Science in Environmental Education

Montreat College, North Carolina

Second Reminder to Participants (Sent through Survey Monkey)

Subject Line: NCOBS Alumni we need your help

Body:

Dear NCOBS Alumni,

Earlier last week you received an email asking you to take a survey about your NCOBS course and environmental attitudes. If you have already filled out the survey, thank you!

If you have not had the chance to, there is still time. It will only take about 5-10 minutes of your time. Your responses will be kept confidential and will have no impact on your relationship with the research team or NCOBS. At the completion of the survey you will be entered to win an North Carolina Outward Bound water bottle and headwear on February 21. Your input is important and will be used to improve future courses.

Click the button below to start or continue the survey.

Thank you for taking time to complete the survey,

Sara Briley

Candidate for Masters of Science in Environmental Education

Montreat College, North Carolina

Third Reminder to Participants (Sent through Survey Monkey)

Body:

Dear NCOBS Alumni,

Earlier you received an email to take a survey about the North Carolina Outward Bound School and environmental attitudes. If you have already filled out the survey, thank you!

There are only seven days left to take the survey and be entered to win an Outward Bound water bottle and buff. The survey must be completed by March 3rd. To be entered to win, simply take this short 5-10 minute survey about your NCOBS course. The last day to be entered to win is March 3rd. Below is a link to participate in this brief survey. As a reminder, your responses will be kept completely confidential and will have no affect on your relationship with NCOBS or the research team.

Thank you for taking time to complete the survey,

Sara Briley

Candidate for Masters of Science in Environmental Education

Montreat College, North Carolina

Fourth Email Reminder to Participants (sent through email)

Subject Line: North Carolina Outward Bound Alumni I need your help!

Body:

Dear (Inserted Participant Name)

I am writing to enlist your help!

My name is Sara Briley and I am a graduate student at Montreat College in North Carolina. I am currently working on a paper about the impact of Outward Bound on environmental attitudes. I am working with the North Carolina Outward Bound School conducting a follow up study on the NCOBS post course impression survey that you completed at the end of your course. You are being contacted because you indicated that you would be willing to participate in future studies with NCOBS.

I am personally inviting you, as NCOBS alumni, to participate in a 10 minute survey. Your feedback is valuable and will be used to help improve NCOBS courses in the future.

Your responses will be kept completely confidential. At the completion of this survey you will be entered to win an Outward Bound water bottle and Outward Bound headwear. There is limited time to be entered into the drawing. Complete the survey by April 13th, 2017 to be entered to win.

Click the link below to take the survey.

https://www.surveymonkey.com/r/LKNVJXQ

Thank you for taking time to complete the survey,

Sara Briley

Candidate for Masters of Science in Environmental Education

Montreat College, North Carolina

Fifth Email Reminder to Participants (sent via email)

Subject Line: North Carolina Outward Bound Alumni I need your help!

Body:
Dear (Inserted Participant Name)

From one student to another I still need your help! Earlier last week you received an email from me asking you to take a survey about your NCOBS course and environmental attitudes. If you have already filled out the survey, thank you!

If you have not had the chance to, there is still time. It will only take about 5-10 minutes of your time. Your responses will be kept confidential and will have no impact on your relationship with the research team or NCOBS. At the completion of the survey you will be entered to win an North Carolina Outward Bound water bottle and headwear on April 13, 2017. Your input is important and will be used to improve future courses.

Click the link below to take the survey

https://www.surveymonkey.com/r/LKNVJXQ

Thank you for taking time to complete the survey,

Sara Briley

Candidate for Masters of Science in Environmental Education

Montreat College, North Carolina

Final Email Reminder to Participants (sent via email)
Body:

Dear (participant name)

I am still in need of your help! Earlier this week you received an email to take a survey about the North Carolina Outward Bound School and environmental attitudes. There is only one day left to take the survey and be entered to win the Outward Bound water bottle and buff. If you have already filled out the survey, thank you!
The survey must be completed by April 14th. To be entered to win, simply take this short 5-10 minute survey about your NCOBS course. The last day to be entered to win is April 14th. Below is a link to participate in this brief survey. As a reminder, your responses will be kept completely confidential and will have no affect on your relationship with NCOBS or the research team.

Click the link below to take the survey
https://www.surveymonkey.com/r/LKNVJXQ

Thank you for taking time to complete the survey, your help is greatly appreciated!
Sara Briley
Candidate for Masters of Science in Environmental Education
Montreat College, North Carolina