INFLUENTIAL FACTORS LEADING INDIVIDUALS INTO ENVIRONMENTAL EDUCATION

by

ELIZABETH FINCHER

(Under the Direction of Nick Fuhrman)

ABSTRACT

One’s choice of a career is often the result of an influential person or experience in their life. Prior research from Chawla explored significant life experiences with environmental educators and identified variables which motivated individuals to advocate for the environment. However, there is little research exploring the effect of sense of place and empathy towards said place on the manifestation of a significant life experience (SLE) within environmental educators. Within this qualitative study, the empathy-altruism hypothesis, sense of place, and SLE frameworks are used to help understand what motivates individuals to become environmental educators. Findings indicated that those who influence others to pursue EE inspire them less with their content knowledge and more with their relationship building skills. Collegiate programs which prepare students for EE careers should consider placing greater emphasis on the mechanics of teaching and less on the content to be taught.

INDEX WORDS: Environmental Education, Influential, Significant Life Experiences, Sense of Place, Empathy-Altruism Hypothesis, and Environmental Educators
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by

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BSFR, UNIVERSITY OF GEORGIA, 2016

A Thesis Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

MASTER OF AGRICULTURAL AND ENVIRONMENTAL EDUCATION

ATHENS, GEORGIA

MAY 2018
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May 2018
DEDICATION

I would like to dedicate this paper to my parents (John and Donna Fincher) for constantly encouraging me to pursue a career that I would love. Without you guys, I would not be doing the work I am passionate about and would be stuck doing a job I don’t enjoy for the rest of my life. You two will never understand the gratitude I feel towards y’all. I spent these past years working and talking with students whose parents forced them into a major and career they despise and I’m lucky enough to share with them the love y’all instilled in me to do something I truly love instead of worrying about money. Love y’all!
ACKNOWLEDGEMENTS

First off, I have to acknowledge Steve Irwin for inspiring me to fall in love with all sorts of animals, even those with bad reputations. Without him, I would not have pursued a degree in wildlife sciences, which eventually led me to Environmental Education.

Next, I need to acknowledge Ranger Nick for encouraging me in his teaching with animals’ class to think about a career in Environmental Education. Ranger Nick had a major impact on my life and is someone I would consider to be one of my greatest inspirations. If I am half as successful as him, I will consider myself lucky. I was lucky enough to have him as my major professor and his constant encouragement and willing to listen to what I had to say is probably the sole reason I am graduating, so thank you Ranger Nick!

I would also like to acknowledge my committee members (Dr. Newberry, Dr. Buxton, and Dr. Gale) who encouraged me to push through all the stress and kept me aware of any deadlines that were looming over me.

Also, my friends and roommates (Courtney Bennett and Rachel Pack) who were able to keep me focused when I needed to be and distracted me from the stress whenever I asked them to. Thank you guys!

Finally, I would also like to acknowledge my fellow graduate students (Hillary Jourdan, Dwight Carlston, Darcy Schueler, and Mal Begay) for understanding what I was going through and for encouraging me to continue even when I didn’t want to. I can’t wait to see what you guys do next!
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CHAPTER 1
INTRODUCTION

Introduction

Influences within someone’s life can come in many different forms. Experiences, places, and people all can contribute to the path one takes in terms of career choice and even hobbies. Environmental educators work to move audiences from awareness of environmental problems to taking the necessary action to address such problems. Through their teaching, these non-formal educators provide unique experiences for learners within unique places which can potentially change the direction of their lives. Although such experiences are important, little research has been conducted on why environmental educators chose their career path and what influential factors brought them into the environmental education (EE) arena. This study will look at why people identified as influential educators by their previous students decided to pursue a career in EE to determine if their experiences can be translated into a camp setting or other EE settings to encourage future environmental educators or advocators.

Description of Terms

Environmental education (EE), as defined by the National Environmental Education Act in 1990 consists of, “…educational activities and training activities involving elementary, secondary, and postsecondary students...and environmental education personnel, but does not include technical training activities directed toward environmental management professionals or activities primarily directed toward the support of noneducational research and development” (NEEA, 1990, p. 3327). For the purpose of this study, environmental education will be defined in this way and will
involve educational experiences which move audiences from awareness to action (NAAEE, 2004).

Although not directly studied in previous research, influential individuals are those who, through their character, personality, or other capacity have a compelling force over someone. In a study conducted by Osterberg, Swigris, Weil, and Branch in 2015 about recognizing the unsung heroes teachers are, they described influential educators as, “…[those] who seemed to make it their personal mission to be special guides, role models and mentor their learners… Most influential teachers drew students to them and exerted their powerfully positive influences through combinations of conventional teaching strengths” (Osterberg et. al., 2015, p. 1121).

**Statement of the Problem**

Research looking into Significant Life Experiences (SLE) had been conducted primarily regarding SLEs and how they led the person to participate in an environmentally-responsible behavior or how they led the person to have environmental concern (Chawla, 2010; Chawla, 2006; Palmer, Auggate, Bajd, K. P., Ofwono-Orecho, Robottom, Tsaliki, & Staden, 2006). However, SLE research has not been combined with several other, related theoretical bases, including sense of place and empathy-altruism hypotheses, to better understand why one pursues EE. With this knowledge, EE programs will be able to determine what they should be investing their time and money into. Thus, this study is important because save time and money when it comes to making decisions regarding the curriculum because this study will determine the most impressionable experiences that helped influential educators.
Should EE programs devote more resources to their environment or the teachers working in that environment? This and similar questions, are what this study is designed to answer.

Rationale

Significant Life Experience (SLE) research had primarily analyzed environmental educators as it related to their environmental concern, but this study was designed to examine how their SLEs related to their decision to begin a career in EE (Chawla, 2010; Chawla, 2006; Palmer et. al., 2006). Little research has been conducted on environmental educators and why they chose to become environmental educators, and this study will address this gap in the literature specifically.

The researcher chose to utilize Georgia 4-H EE staff members because they are required to complete standardized trainings to teach EE through 4-H, which the researcher thought would provide the study with more structure. Also, Georgia 4-H EE staff members work seasonally and come from across the country, which helped the researcher reach people from a variety of backgrounds.

Glesne defined qualitative research as, “a type of research that focuses on qualities such as words or observations that are difficult to quantify and that lend themselves to interpretation or deconstruction” (Glesne, 2011, p. 283). The researcher believed these methods would apply better to what they wanted to accomplish in this study because they were able to learn more about the influential educators than they would have through a quantitative research project. Also, SLE research had predominantly utilized qualitative methods in the past (Chawla, 2010; Chawla, 2006; Palmer et. al., 2006).
Purpose of the Study

The purpose of the study was to learn more about people who are considered influential educators by the 4-H EE staff members the researcher spoke to. The ultimate goal of the study was to use what the researcher learned about what influenced the influential educators to begin their career in EE to encourage more environmental educators or advocates and even allow degree programs at the collegiate level to enhance experiences they provide for students considering EE as a career path.

Research Question and Objectives

There was one primary research question for this study, “What life events led environmental educators down an environmental education career path?” Along with this research question, there were two primary objectives, which included: 1) Understand the characteristics and experiences of 4-H EE Staff members who were influenced by an influential person and 2) Understand the characteristics and experiences of individuals who influenced 4-H environmental education staff to pursue a career in environmental education.
CHAPTER 2
LITERATURE REVIEW

Environmental Education (EE)

Environmental Education (EE) was formally defined during the United Nations Educational, Scientific and Cultural Organization-United Nations Environment Programme meeting in 1976 where the Belgrade Charter was developed. The Belgrade Charter gave the ultimate goal of EE as “…the development of an environmentally literate citizenry” (NAAEE, 2004, p. 3). In 1990, The National Environmental Education Act (NEEA) was passed by Congress and it required the Environmental Protection Agency (EPA) to “…provide national leadership to increase environmental literacy” (EPA, 2018). The NEEA defined EE as “…educational activities and training activities involving elementary, secondary, and postsecondary students…and environmental education personnel, but does not include technical training activities directed toward environmental management professionals or activities primarily directed toward the support of noneducational research and development” (NEEA, 1990, p. 3327).

It is generally believed to achieve the goal of EE, to create an environmentally literate citizenry, “…environmental educators must provide students with opportunities to acquire the knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment” (Ballantyne & Packer, 1996, p. 25). These requirements mentioned by Ballantyne and Packer are some of the objectives designed by the Tbilisi Declaration in 1978 (Athman & Monroe, 2001). The objectives involved moving from awareness to action. Awareness meant “…to acquire an awareness and sensitivity to the total environment and its allied problems” (UNESCO, 1978). Action or participation
meant “…to encourage citizens to be actively involved at levels in working toward resolution of environmental problems.” In between awareness and action were knowledge, attitudes, and skills. Knowledge was defined as “…gain[ing] a variety of experiences in and acquire[ing] a basic understanding of, the environment and its associated problems.” For the Tbilisi Declaration, attitudes meant “…to acquire a set of values and feelings of concern for the environment and motivation for actively participating in environmental improvement and protection.” Skills was defined as “…to acquire the skills for identifying and solving environmental problems.” Many environmental educators continue to use these objectives as guidelines for EE at all geographical levels (Athman & Monroe, 2001).

The North American Association for Environmental Education utilized both the Belgrade Charter and the Tbilisi Declaration when they designed their “Guidelines for Learning,” which is a publication meant to “…provide students, parents, educators, home schoolers, administrators, policy makers, and the public a set of common, voluntary guidelines for environmental education” (NAAEE, 2004, p. 1). One action which could result from EE experiences could be pursuing a career in an environmentally-related field. Although we know these things about EE, we still do not understand why people have decided to pursue a career in EE, which is what this study is designed to answer.

**Effective Teaching Methods in EE**

Rosenshine and Furst (1971) developed a list of 11 teacher-behavior variables that are regarded as the “most promising of the variables studied” (Heath & Nielson, 1974; Rosenshine & Furst, 1971). The 11 variables include: 1. Clarity, 2. Variability, 3. Enthusiasm, 4. Task-oriented and/or businesslike behavior, 5. Student opportunity to
learn criterion material, 6. Use of student ideas and general indirectness, 7. Criticism, 8. Use of structuring comments, 9. Types of questions, 10. Probing, and 11. Level of difficulty of instruction (Rosenshine & Furst, 1971). These 11 variables can be utilized in multiple realms of EE. Environmental education is a versatile area of study and can be conducted in a variety of arenas, which include formal and non-formal educational settings. Formal educational experiences are those generally described as being planned and occurring in settings which are familiar to learners. Non-formal experiences, on the other hand, are planned but occur in settings less familiar to learners (introducing the concept of distractions to the learning environment). These two settings provide environmental educators with completely different teaching experiences and require a variety of teaching strategies to be effective (Goldsmith, 2017).

Effective Formal Teaching Methods.

Formal education is structured and performed in a formal classroom setting (Brain, Fuhrman, & De Lay, 2009). Figure 1 is a table taken from Goldsmith’s (2017) thesis depicting the top five characteristics of an effective teacher in a formal setting according to Rosenshine and Furst (1971) as it is compared to several other papers (Rosenshine & Furst, 1971; Bluger, Mohr, & Wallas, 2002; O’Neill, 1988; Minor, et. al., 2002; Walker, 2010; Siedel & Shavelson, 2007; Stronge, 2007). Effective teaching has been researched thoroughly in a formal teaching environment and more recently has been analyzed in a non-formal setting (Rosenshine & Furst, 1971; Taylor & Caldarelli, 2004).
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Figure 1. A table representing characteristics of effective teachers in a formal setting as they appeared in literature.

**Effective Non-formal Teaching Methods.**

Non-formal education is also structured, but is not conducted in a formal classroom setting (Brain, Fuhrman, & De Lay, 2009). Based on a study conducted by Brain, Fuhrman, and De Lay, the results “…indicate[d] that ‘good’ teaching in non-formal settings is grounded in relationships, flexible and adaptive, identifiable in audience non-verbals…and involves mastering the fundamentals” (Brain, Fuhrman, & De Lay, 2009, p. 54). Even though teaching in both a formal and non-formal setting require a different set of skills, it is necessary for the educator to have an enthusiasm for the topic (Goldsmith, 2017).

**Significant Life Experiences (SLE)**

Significant life experiences (SLE) are “…the formative influences recalled by people whose lives demonstrate environmental concern” (Chawla, 2010, pg. 11). The goal of the qualitative research that looked into SLEs was to “…understand how people
gain the combination of compassion and knowledge that guides effective environmental protection” (Chawla, 1998, p. 360). SLEs had been used in research to compare and contrast people’s experiences throughout different countries (Palmer et. al., 2006). SLEs were specifically related to analyzing environmental educators, but never in the context of why they chose a career in EE (Chawla, 2010; Palmer et. al., 2006; Chawla, 2006). The researcher planned on using SLEs to determine if there were instances in the influential educators past that led them to choose EE as their career path. This study explored how SLEs could be used to understand why environmental educators selected an EE career path.

**Sense of Place**

Sense of place is “…a multidimensional construct representing beliefs, emotions and behavioral commitments concerning a particular geographic setting” (Jorgensen & Stedman, 2006, p. 316). The researcher applied this theory in the study by assuming that the SLE occurred at a particular place the influential educator then felt a connection to because of the experience or repeated experience(s) they had. By understanding the role of a place where a significant life experience occurred, one may be better able to interpret why environmental education was selected as a career path (Jorgensen & Stedman, 2006; Cross, 2001).

**Empathy-Altruism Hypothesis**

The empathy-altruism hypothesis “…claims that the prosocial motivation evoked by empathy is directed toward the ultimate goal of increasing the welfare of the person in need” (Batson et. al., 1991, p. 413). Empathy can be used as a source of motivation
(Batson et. al., 2005). The researcher utilized the empathy-altruism hypothesis in the study by assuming the influential educators felt empathy to the place they were connected to (sense of place), which led them to want to protect the place, using empathy as their motivation (Newberry, 2012). Pursuing a career in EE would involve said individuals evoking altruism toward other, special places and wanting to protect those for others to enjoy. Although we know these things about the empathy-altruism hypothesis, we still do not know how it is connected to EE and how it can be used to better understand the role of influential educators in the lives of those in environmental education.

**A Combination of Three Frameworks**

The three frameworks (SLE, Sense of Place, and Empathy-Altruism Hypothesis) combined, created the framework for this study. The researcher believed that the influential educators had significant life experiences that led them to choose their specific career path in EE. Also, the researcher believed that the influential educators had a place in their childhood, early adulthood, or currently have a place that they feel a special connectedness to. The researcher also believed that the empathy-altruism hypothesis would apply to the influential educators through their empathy towards the place they were connected to or through an animal at that place (Fuhrman, 2007, Newberry, 2012). The combination of these three frameworks was what the researcher believed created influential educators in the field of EE. The researcher believed that the SLE occurred at a specific place the influential educator then became attached to (sense of place) and the attachment stemmed from the influential educator feeling empathy towards it and being motivated to protect the place (empathy-altruism hypothesis). Figure 2 is a visual
representation of how the researcher believed the three theories interacted to create an influential educator.

Figure 2. The visual representation of the framework of the study.

Theoretical Model

Before the interviews were conducted, the researcher believed that the influential educator was the sole influencer in the relationship between themselves and the 4-H EE Staff Member, resulting in a one-way relationship. The predicted relationship was based on the influential educator using their previous experiences (SLEs, sense of place, and empathy-altruism hypothesis) to “mentor” the 4-H EE Staff Member who would then go
on and form their own SLEs, sense of place, and empathy-altruism based on what they learned from their influential educator (Figure 3).
Figure 3. The researcher’s proposed theoretical model of the relationship between the 4-H EE staff member and influential educator before conducting the interviews.
Summary and Gaps

Given the information presented in this chapter, we know that EE has been formally defined with designated objectives since 1978. The researcher also presented the reader with information about the different modes of effective teaching as seen in EE in both formal and non-formal settings. Three theories were discussed in this chapter: significant life experiences, sense of place, and the empathy-altruism hypothesis. Each of the theories were explained and connected to the study discussed in later chapters. The researcher also predicted the relationship between the 4-H EE staff member and the influential educators that will be discussed in later chapters. Although we know these things about each of the different topics presented in this chapter, we still do not know why influential educators decided to pursue a career EE, which is what this study was designed to answer. This study is beneficial to EE because it can be used to encourage future environmental educators and/or advocates by using what the researcher learns about the influential educators’ past. The duplicable influential educators’ experiences can be used in camp or classroom settings to hopefully influence the future generation of environmental educators.
CHAPTER 3

RESEARCH DESIGN AND METHODS

Problem Statement and Research Question

Environmental educators have been the focus of studies in the environmental education literature—including their teaching styles, success rate of their EE program, and their personal environmental habits (Goldsmith, 2017; May, 2000; Chawla 2010). However, there has not been a study identifying influential educators and determining what influenced them down an environmental education career path. This information is important to know because it could be used to benefit environmental education degree programs and recruitment efforts. According to the Belgrade Charter, “The goal of environmental education is to develop a world population that is aware of and concerned about the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones” (UNESCO-UNEP, 1976 pg. 2). This study would benefit environmental education as a whole because it will identify overlapping characteristics of influential educators that could be fostered in camp settings to encourage future environmental educators and/or advocates (Fuhrman & Rubenstein, 2017). Also, when interviewing one of the influential educators, they mentioned the importance of conducting research looking into the educators:

“I guess I’m glad to hear this kind of research going on…so doing research on the process of environmental education is important to help,
you know, educate the profession, so I thank you for that and what hopefully will come out of it” (IE3, 2018).

The overall research question which guided data collection and analysis was, “What life events led environmental educators down an environmental education career path?” There were two primary objectives which included to: 1) Understand the characteristics and experiences of individuals who were influenced by an influential person and 2) Understand the characteristics and experiences of individuals who influenced 4-H environmental education staff to pursue a career in environmental education.

The researcher connected three theories to help guide data collection and interpretation. These included: 1) Significant Life Experiences (Chawla, 2010), 2) Sense of Place (Adams et. al., 2016), and 3) Empathy-Altruism Hypothesis (Batson, 1991). Significant life experiences (SLE) are the formative influences recalled by people whose lives demonstrate environmental concern (Chawla, 2010). The researcher used this theory to better understand the SLE’s of influential educators that led them down an environmental education career path. Sense of place describes a personal relationship one feels with places that can be expressed in different dimensions of human life (Adams et. al., 2016). This theory, combined with SLE, helped understand the potential influence of place on those participants classified as influential in the eyes of environmental educators in Georgia. The empathy-altruism hypothesis states that the prosocial motivation evoked by empathy for an individual then influences altruism toward other individuals and empathy and altruism increase the likelihood of a helping behavior (Batson, 1991). The researcher used this theory to connect the final piece in the SLE puzzle because the
influential people may have felt empathy for an animal, plant, or place that led them to a connection to nature/that natural place, which led them down an environmental education career path.

Data Collection

The researcher began the study by contacting the 4-H extension specialist overseeing the 4-H environmental education program in Georgia to ask for contact information for the 4-H center program coordinators who are directly in charge of 4-H environmental education staff at each 4-H center (Figure 4). The program coordinators then sent the researcher the contact information for the 4-H environmental education staff meeting the criteria for inclusion in the study of (a) being on the environmental education staff for at least three months at their respective 4-H center and (b) being currently involved in teaching youth through the Georgia 4-H Environmental Education program. The researcher then contacted the 4-H staff from the list provided to introduce the study and invite their participation, if interested. Once staff interest was obtained, the researcher scheduled times to conduct interviews (either in person or over the phone, depending on which 4-H center the staff member was located) (Figure 4) (Appendix A).

All data collection procedures were approved by the University of Georgia Institutional Review Board prior to the start of the study. Once consent to participate in the study was obtained from the 4-H EE staff, the researcher conducted interviews with the EE staff which lasted between 10 and 15 minutes. Even though the interviews were short with 4-H EE staff members, a study conducted by Siemiatycki in 1979 found that short telephone and mail surveys found comparable information to longer individual interviews (Siemiatycki, 1979). All interviews were transcribed verbatim. The researcher
established rapport with the 4-H staff by sharing personal stories and mentioning that their name was given by a program coordinator at their respective 4-H center. A semi-structured interview guide allowed the researcher to facilitate the interviews consistently across participants and the questions were developed based on findings from the literature review (Chapter 2) (Appendix 1). One of the goals of the interview was to identify the name of at least one influential person who influenced the EE staff member to pursue environmental education as a career path. With this information, the researcher then made efforts to conduct another interview with that individual. Figure 5 is an illustration of the process the researcher went through to complete part 1 of the research conducted.

The researcher conducted two separate interviews with the identified influential individual shared by the 4-H EE staff member. The first interview involved getting to know the influential individual and the second interview allowed the researcher to promote deeper thought from the participant on what was shared during the first interview. During these interviews with those influencing the EE staff member to pursue EE, it was important to establish rapport as these interviews were conducted over the phone because of geographic limitations. Figure 7 displays a map of the United States indicating where these influential individuals were located. For the first interview with influential individuals, rapport was established by mentioning the name of the student who recommended them as an influential person in their life, as well as sharing personal details about the influential individual the student shared with the researcher. During the second, follow-up interview, rapport was established by talking about the events they shared with the researcher in the first meeting. In addition, trustworthiness and dependability were ensured by member checking, peer review, and debriefing (Glesne,
Member checking involved the researcher sharing the transcriptions with the researcher’s advisor to analyze for themes and then compare the two thematic analyses of the transcriptions to determine if all themes were properly identified. Peer review included discussing the thematic analysis of the transcription with a peer to confirm the process was done correctly and themes were found properly. Finally, debriefing involved the researcher reflecting after each of these processes to determine if they were completed properly. Figure 6 is the illustration of the data collection process detailed in this section for part 2 of the research conducted.

Figure 4. A map of the five 4-H center locations around Georgia.
Figure 5. An illustration of the data collection process for part 1 of the research.

Figure 6. An illustration of the data collection process for part 2 of the research.
Site Selection: Part 1

The researcher spoke with seven 4-H EE staff members who were originally from all over the country, but were all currently based out of one of the five 4-H centers pictured in Figure 4. The researcher reached out to individuals from all five of the centers, but only heard from staff members from Jekyll Island 4-H Center, Burton 4-H Center, Fortson 4-H Center, and Wahsega 4-H Center. The Jekyll Island 4-H Center is based on Jekyll Island, which is an island off of the coast of Georgia (UGA Extension “Center history and future plans”). The center on Jekyll Island was established in June of 1983 and is located near the beach. The Burton 4-H Center is located on Tybee Island, which is another island off of the coast of Georgia. The center “...is located on a 6-acre hammock surrounded by acres of salt marsh” (UGA Extension “Burton 4-H Center”). The Fortson 4-H Center is located in Hampton, Georgia and is 75 acres of “…forest, field, pond, and wetlands” (UGA Extension “Fortson 4-H center”). The Wahsega 4-H Center is located in the mountains of Dahlonega, Georgia in the northern most part of the state (UGA Extension “Wahsega 4-H center). It was important to sample environmental educators from 4-H centers across Georgia because of the state’s varied topography and physiographic regions. Each of these centers based their environmental education programs off of the topography and geography of their region. For example, the Jekyll Island and Tybee Island 4-H centers focus on beach ecology because of their location; whereas, the Wahsega 4-H center would discuss the effect of the mountains on the ecology of the environment around them.
Site Selection: Part 2 (Phase 1 and Phase 2)

The researcher spoke with five influential individuals around the country because the researcher received the names of the influential people from the 4-H staff members who were also from all parts of the country. The map (Figure 7) shows the current locations of the influential individuals along with the locations of their significant places from their childhood or early adulthood. The researcher spoke with influential educators currently located in Kansas, Colorado, North Carolina, and Georgia.

Figure 7. A map of the locations of the influential educators’ current locations and their significant places (light and dark blue – IE1; red and dark red – IE2; green and dark green – IE3; yellow and orange – IE4; gray and dark gray – IE5).

Participant Selection

The researcher chose to start with 4-H environmental education staff because they were most likely to have been influenced by someone to enter the environmental education career path. The researcher also had access to the staff members because the staff members were employees of the University of Georgia through 4-H. The criteria for the 4-H staff members to be included in the data collection process was that they had been employed by their respective 4-H center (Rock Eagle, Wahsega, Fortson, Camp
Jekyll, or Burton) for at least three months and currently involved in teaching youth through the Georgia 4-H Environmental Education program. The researcher wanted the 4-H staff to be employed for at least three months because the researcher wanted to know for a fact the staff members had environmental education teaching experience and this criteria would ensure that.

A set of criteria was also developed for identifying individuals who were influential to the 4-H EE staff member selecting EE as a career path. The criteria for the influential people included that the individual: (a) had been mentioned by a 4-H staff member, (b) held a leadership position during the time the EE staff member had interacted with that individual, (c) had at least ten years of experience in the field of environmental education (e.g., working at a nature center), (d) had helped train others, and (e) had some form of animal handling experience. According to May (share the year here), an effective environmental educator utilizes a framework that includes three categories: teaching conditions, teacher competencies, and teaching practices. Desirable teaching conditions include various forms of “…support, resources, flexibility, and climate” (May, year, p. 6). When it comes to teaching practices, an effective environmental educator “…frequently use[s] constructivist, student directed, and experiential” teaching styles (May, year, p. 6). Although not all of those identified as influential were environmental educators themselves, the researcher worked to ensure that they had experience interacting in the types of environments/teaching conditions typical of those in environmental education.
Description of Participants

The researcher spoke with seven 4-H environmental education staff and five influential individuals, referred to the researcher by at least one of the staff members (Table 1). The 4-H staff members were located at one of the five 4-H centers around Georgia and were seasonal staff members, but one of them who was a full-time environmental education staff member. Four of the seven staff members were located at the Burton 4-H Center on Tybee Island, two of the seven were located at the Jekyll Island 4-H Center on Jekyll Island, and one of the seven was located at the Wahsega 4-H Center in Dahlonega, Georgia. One of the staff members from Burton 4-H Center had just arrived back from working four weeks at Fortson 4-H Center in Hampton, Georgia. Although all of the staff members were located in Georgia at the time of the interview and they were originally from across the country.

Since the staff members were from across the country, it meant that the names for their influential individuals were not necessarily located in Georgia. Three of the five influential individuals were located out of Georgia and, at the time of the study, resided in Colorado, Kansas, and North Carolina. The other two influential individuals were located in Georgia at their respective 4-H centers.
Table 1. The locations of the 4-H environmental education staff members and their respective influential individual locations.

<table>
<thead>
<tr>
<th>Staff Member Code</th>
<th>4-H Center Location</th>
<th>Influential Individual Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Jekyll Island (Jekyll Island 4-H Center)</td>
<td>Colorado</td>
</tr>
<tr>
<td>S2</td>
<td>Dahlonega, Georgia (Wahsega 4-H Center)</td>
<td>Georgia</td>
</tr>
<tr>
<td>S3</td>
<td>Tybee Island (Burton 4-H Center)</td>
<td>N/A</td>
</tr>
<tr>
<td>S4</td>
<td>Tybee Island (Burton 4-H Center)</td>
<td>Kansas</td>
</tr>
<tr>
<td>S5</td>
<td>Jekyll Island (Jekyll Island 4-H Center)</td>
<td>N/A</td>
</tr>
<tr>
<td>S6</td>
<td>Tybee Island (Burton 4-H Center)</td>
<td>North Carolina</td>
</tr>
<tr>
<td>S7</td>
<td>Tybee Island (Burton 4-H Center)</td>
<td>Georgia</td>
</tr>
</tbody>
</table>

**Data Analysis**

The researcher utilized thematic analysis, which is when “…the researcher focuses analytical techniques on searching through the data for themes and patterns” (Glesne, 2011, p. 187). The researcher analyzed the transcripts of the first phase of
interviews, which were with the 4-H staff members, to better understand the characteristics of those who influence others to pursue a career in EE. The researcher read through each interview individually to code them and then compared the themes between the seven individuals to determine the best fitting themes across all of the 4-H staff member interviews. The researcher used member checking to achieve trustworthiness by having another person read through and code each interview and compared the themes between each other (Glesne, 2011). Once the most accurate themes were determined, the researcher then combined any codes that fit under a newly developed theme to better organize the data. The researcher then re-analyzed the transcripts to code for the new themes and to determine the dominant themes within the 4-H staff member interviews. These themes were used to characterize traits of influential individuals, as well as to discuss with the influential individuals in the next phase of interviews.

The researcher conducted two interviews with each of the influential individuals to learn more about the how they influenced the 4-H EE staff member. Once the first interviews were conducted, the researcher listened to the recordings of the interviews to determine what to ask in the follow-up interview with the influential individuals. After the second interviews were conducted, the researcher transcribed each interview and analyzed them for themes. Once again, the researcher utilized member checking to ensure trustworthiness (Glesne, 2011). Themes were developed individually and then compared across individuals to determine the most accurate names to describe each theme. The researcher then read back through each transcript to ensure the most accurate themes
were developed and applied to the interviews. The researcher then used those themes to
determine the most dominant themes overall to report.

After the researcher determined the themes for both parts of the research, the
researcher then went through each transcribed interview (each EE staff member and
influential educator) to determine which quotes best represented the themes. These quotes
are found in Chapter 4 of this paper. Although most of the quotes represented the themes,
there were several quotes that were outliers from the rest of the data and will be
mentioned in Chapter 5.

**Researcher Subjectivity**

Since this is a qualitative study, an awareness of what has influenced me to
choose this question and topic is needed. As Glesne says, “…[subjectivity] can make you
aware [of] not only your own perspectives, but also how those perspectives might lead
you to ask certain questions (and not others) and to make certain interpretations (and not
others) of interactions within the research setting” (p. 154). My personal subjectivity is
described below:

I grew up in one of the largest counties in Georgia, Henry County. While there
was not too much greenspace in the county, I spent as much time outdoors as I could. The
majority of my childhood was spent in my neighbor’s backyard building forts, playing in
the mud, catching amphibians and small mammals, and other similar activities. Spending
so much time outdoors at a young age blossomed into a lifelong love of animals and
nature. I consider these experiences to be significant life experiences which influenced
the person I am today.
When my parents could drag me back indoors, the majority of my time was spent watching Animal Planet on television. I caught every episode I could of *The Crocodile Hunter* and Steve Irwin was a personal hero and role model. I also enjoyed watching *The Most Extreme*, where each episode was about a different category of animals. Watching *The Most Extreme* developed into a love for animals with “bad reputations” or animals that most people do not really care for because they have the potential to be dangerous.

During elementary school, I was required to participate in 4-H. I decided to do a poster presentation competition through 4-H about cats, since I had a cat at home that I could use for the presentation. I ended up going to the state competition and placing first in it. Through the competition and participating in plays through church, I began to enjoy public speaking activities.

During my Junior year of high school, I completed a college project in one of my classes where you had to choose five colleges, a major, and contact someone at the college of interest. I had a difficult time picking my major until I Googled who Steve Irwin was. I learned that he was a wildlife biologist and the University of Georgia (my first choice in college) had a wildlife sciences major that I could use to become a wildlife biologist. I contacted the person at the Warnell School of Forestry and Natural Resources (where the wildlife sciences major was located) and after speaking with her ended up deciding I wanted to go there. My experiences outdoors and my enjoyment in watching Steve Irwin on television sparked this passion for formal education in the wildlife sciences.

I was also involved with Future Farmers of America throughout high school, which gave me a background in livestock and helped me determine that I did not want to
work with those animals. At the end of my junior year of high school, my agriculture teacher encouraged me to apply for the Young Scholars Program (YSP) at the University of Georgia (UGA), since I determined that I wanted to attend the university. YSP is a program where high school students conduct research with professors at UGA on all three campuses over a six-week period during the summer. I was accepted into the program and spent the summer of 2012 shadowing veterinarians at UGA’s large animal vet school. Through that summer experience, I enjoyed watching surgeries and assisting the vet students in rounds and grooming the animals. These up-close encounters with the animals made a deep impression on me.

When I was accepted to UGA during the second semester of my senior year of high school, my plan was to become a zookeeper because I did not want to deal with people, only animals. My first semester in college, I took a First Year Odyssey course with a professor from Warnell called “The Truth about Bats and Frogs.” The class was essentially about animals with bad reputations and discussing how they had a positive impact on the environment. Through this course, I learned that working with wildlife, like I wanted to do, involved more than just the animals. After learning this, I decided I needed to take more courses in how to communicate with people.

Fall of 2014, I was able to take a class that introduced me to one of my influential people. The class taught me how to properly handle a snake, turtle, salamander, gopher tortoise, and introduced me to Dr. Fuhrman. This class was a turning point in my college career because I realized I was interested in doing outreach with animals.

While I was in Warnell as an undergraduate student, I decided to apply to be an ambassador to represent the school at certain events and recruit future students. Once I
was accepted as an ambassador, I made sure to participate in any events that were similar to outreach to gain more experience. One of the major events that I began helping with my last semester in my undergraduate career was Experience UGA. Experience UGA is an event designed to bring local K-12th grade students to the UGA campus. The specific Experience UGA event I was involved in brought first grade students to campus to learn about medicine, forestry, wildlife, and plant safety. The forestry station activity I facilitated was about teaching the students which noises were safe to go towards (ex. park ranger) and which were dangerous (ex. bees) while they are in the woods. I was able to impact the students and encourage them to explore the outdoors, which cemented the fact that I wanted to do something similar as a career. Perhaps the experiences I was providing for these elementary students would become significant life experiences for them.

Although it has taken me my entire life to determine what I wanted to be when I “grew up,” environmental education has been a common theme throughout. I plan on working in outreach for the rest of my life to encourage people to become environmental educators or advocators. I hope that this study will help other environmental educators learn what strategies are successful in influencing people when teaching in a non-formal environment, like 4-H camp (often for a short amount of time), and I plan to use what I learn when I get into the field.
CHAPTER 4

FINDINGS

Results of this study will be broken down into two separate headings: 4-H staff themes and influential educator themes from phase 1 and 2. The themes are listed in order of how often they appeared in the interviews (highest to lowest). Each of the themes finish a different statement related to the research.

4-H Staff Themes

The researcher found five themes from the interviews conducted with the seven, 4-H environmental education staff members. Table 2 breaks down the five themes and how often they occurred in the interviews. Figure 8 is a graphical depiction of what the breakdown of themes is. For each of the themes, the researcher has provided direct quotes from the interviews as examples for what the theme represents.

Those who influence others to pursue EE tend to…

…create a nurturing environment without a desire for personal recognition.

S1 had multiple influential educators at one point in their life and the three individuals all worked with S1 to help them towards their career in 4-H EE. When S1 was prompted to discuss the effect their influential educators had on them, they responded with:

“…[they were] willing to kind of give me their time and give me their energy and make an effort to communicate with me and to, um, they reached out to me very often, um, giving me opportunities to see things and opportunities to try things, um, just that being there, um, and being
someone I can trust and someone that I could, um, be vulnerable with and share my concerns about this career that I was going into and, um, my concerns with hunting specifically, thinking about that, um, and just someone who was there and willing to give me the time that I needed to learn these things and to enjoy these things and to want to give that time back to someone else” (S1).

When S2 was asked how their influential educator assisted them towards their personal career in EE, S2 responded with:

“IE4 is just, um, I don’t know, IE4, um, kind of was like ready to listen and was like willing to work together on things, ... IE4 was like always ready to try new things and new ways of doing stuff and, um, kind of let me have freedom and wasn’t always standing on top of me and what I was doing. I liked IE4’s management style. IE4 was just, he was trusting” (S2).

During S7’s interview, S7 mentioned how large the impact IE2 had on them was when they were talking about:

“I came to that point I was like yea I don’t really know what I want to do with my life, IE2 was like yup come have a job with us, I think you’re really going to do great and then throughout that year I was like, I fell so much in love with it and IE2 was like you go to some of the other places with it, it’s not you know just here, there’s programs throughout the states and so IE2 kind of, cuz his degree was literally environmental education, um, and so IE2 kind of connected me to other places and you know the places to look for jobs and how to look for jobs and you know would
always check my cover letters and my resumes and just used IE2 as my number one reference for like ever and ever and ever” (S7).

...outwardly express their passion/enthusiasm about nature.

One individual (S2) stated, “enthusiasm and like a passion like when somebody is fired up about something they can be talking about the most boring thing in the world and you can still get excited at, about it. It needs to be somebody whose energy is contagious” when they were asked about what they think makes an effective environmental educator. Another staff member (S4) responded similarly when asked the same question by saying, “…just being outgoing like that’s good with anybody in this job, but, um, you know you can’t take yourself too seriously and things that make kids laugh, they’re going to remember more than me spewing information at them.” When S6 was discussing their influential person, they stated, “I’m kind of taking a lot of the passion IE3 had and taking it a step further. So IE3’s really been a huge driving force behind me and supporting me.”

...have an ability to communicate their knowledge across age levels.

The second staff member (S2) thought their influential educators were able to communicate across all ages, which was a reason they were included as an influential educator.

“…they know the information well enough where they can explain it to anyone no matter what level they are at. They need to be able to explain it to a pre-schooler and like somebody who is like 80 years old like, they need to be able to change their language to talk to anybody and it just not be hard” (S2).
The third staff member (S3) thought knowledge and being able to communicate across all ages was a key component to being an effective environmental educator.

“I think a big thing is connections and putting things in ways that I think at least spark thoughts or at least spark a light bulb and to whether that’s a child or an adult, no matter what age. I just think that making that connection in a way that they can understand so they can have like that kind of like that “ah-ha” moment or at least get them thinking about a particular issue or concept whatever that may be, no matter what you’re teaching in that aspect, so I think a big thing is just making that connection that can stick with, even if it’s not permanent, at least for a while that gets them thinking, but especially when they have that “ah-ha” moment, I understand this or hey, I know what this is or hey, I care about this or I never thought about that before, that’s fascinating or terrible or whatever, you might want to call it. I think a big thing is just connections and being able for them to be able to take that with them, even once they’ve left you in that sense” (S3).

The fourth staff member gave the following answer when asked how their influential educator helped them on their career path.

“…so something that really helped me is just the knowledge. They were all very, very smart and they could explain things different ways and I think, I hope that is something that I have picked up, um, but they, they had enough
knowledge about it that they could explain it multiple ways and that always helps me” (S4).

**…exhibit behaviors that indicate high enjoyment of teaching.**

Regarding this theme, S1 stated, “And, um, IE1 was involved in the organization and IE1 had an interest in teaching the students within this professional club, um, hunting” when discussing their influential person. The fifth staff member (S5) was discussing how much they personal enjoyed teaching.

“I really enjoyed, um, the like programs that the organization The Wildlife Society did that I was in, so we put on like, it’s called Science Day and like community kids would come and we would teach them about like the different sciences and stuff. So like that’s how I figured out I really like enjoyed teaching kids about science” (S5).

**…inspire others to care for the environment.**

S5 stated, “…you want the people to learn from you, but also, um, inspiring them to want to learn more about what you’re talking about and care more about your topic or even just like gain a better appreciation for nature in general.” S5 also stated, “… [I wanted] to kind of encourage the next generation of outdoorsy kids [that] was really, really exciting for me.
Table 2. The breakdown of themes for 4-H EE staff members.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Number of Times it Appeared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a nurturing environment without a</td>
<td>16</td>
</tr>
<tr>
<td>desire for personal recognition</td>
<td></td>
</tr>
<tr>
<td>Outwardly express their</td>
<td>13</td>
</tr>
<tr>
<td>passion/enthusiasm for nature</td>
<td></td>
</tr>
<tr>
<td>Have an ability to communicate their</td>
<td>11</td>
</tr>
<tr>
<td>knowledge across age levels</td>
<td></td>
</tr>
<tr>
<td>Exhibit behaviors that indicate high</td>
<td>8</td>
</tr>
<tr>
<td>enjoyment of teaching</td>
<td></td>
</tr>
<tr>
<td>Inspire others to care for the environment</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 8. The graphical depiction of the themes created from the 4-H EE staff member interviews.
Influential Educator Themes

The researcher discovered six themes with several of the themes having one to two subthemes within them (1, 2, 3, and 4). Table 3 is a visual breakdown of the themes and how often they occurred; whereas, Figure 9 is a graphical depiction of the breakdown. For each of the themes, the researcher has provided direct quotes from the interviews as examples for what the theme represents.

Those who influence others to pursue EE began their career through experience(s) related to…

…educating others about the environment.

When IE1 was asked, “What keeps you excited about your job?” they responded with:

“…the ability to, make a difference isn’t the right way, the ability to influence the direction of our culture, influence the, actually it’s an opportunity to influence the way humans and natural resources interact, um, in a way that allows humans to become part of the system as opposed to oppositions of the system. That’s incredibly exciting to me, although, incredibly frustrating from day to day” (IE1).

Even though IE2 is no longer directly teaching kids every week, IE2 was still able to see their impact on the kids, as well as, discuss what keeps them excited about EE.

“I’ve gone from as an educator obviously you’ve got a real direct impact on that person that you’re talking to or that group of kids, um, but it’s only that you know 12 or 20 kids, um, you know in that one class, that’s all you’re impacting. Um, and the reality is that only maybe 2 or 3 of those kids are
actually going to hear something that resonates with them and maybe change their life. It’s not like, yea we’re not fundamentally changing society, um, wholesale at what we do, it’s very incremental, um, it’s very subtle, um, and you don’t get to see it, I don’t think, unless your kind of looking long-term. So, I take a lot of solace in the whole, well, instead of those twenty kids that come through my class, I’m impacting 8,000-9,000 kids, um and their parents through the people that work for me” (IE2).

The fourth influential educator (IE4) enjoyed the influence they had in changing people’s minds on specific animals.

“…seeing people actually experience and learn just an association with nature or fear of nature or also the opposite people are afraid of going on in nature because they are afraid they are going to hurt something that’s going to be not fixable, so avoid nature just don’t touch it, whether you are afraid of it or you don’t want to harm it, but that’s not the case. So I love the fact that we are educating, here we see around three to four thousand people in just the EE program and close to that many in our summer camp program, so it’s amazing just to see all these people came and then they leave in my opinion as better people” (IE4).

The fifth influential educator (IE5) had a similar reason to IE4 on what keeps them excited about being involved in EE.

“So anyways thinking about things like that [common fears] and always talking, uh, with people in general kind of got me more and more excited about going towards education and then when I went into zookeeping
basically I went to a place where the animal programs are done by the keepers and when I left that, uh, I went to a place where the education department did it and the animal keepers didn’t and that was when I actually realized I actually missed talking and telling people about that stuff and getting people energized or so it was little nuances” (IE5).

...supporting other educators.

When the first influential educator (IE1) was asked, “What advice would you give to new environmental educators?”, they stated, “Approach every individual open and willing to listen first to shut the hell up and see what they’re trying to say and don’t put somebody automatically in a box even if they put themselves into a box.” IE4 was asked the same question as IE1.

“I always tell them that if they’re going to show interest and show the drive and that they want to learn that is something that I will, I will help them, I will stay up and I will come in, in the evenings, but I always wanted the environmental educator that is coming in to be the one expressing that interest. I try and help push them and help them grow, but ultimately I want them to make that leap and then we can go from there” (IE4).

When the fifth influential educator (IE5) was asked about what kind of impact they think they had on their 4-H EE staff member (S4), they stated, “I really am not sure how I personally affected S4 besides giving S4 guidance and showing S4 different ways to talk to people and projecting your energy in your talk, um, kind of situation.”

...modestly/humbly impacting others.
The first influential educator (IE1) did not consider themselves a mentor, but described the relationship they build with the people they influence as:

“…mutual self-revelation and mutual shared interests. Let’s start there. Let’s start with the fact that we both care about some of the same things and let’s talk about some of the same things that we care about and let’s try to learn about how each other sees, thinks, and has questions about some of those same things, rather than you just trying to get or some individual just trying to get some quote unquote wisdom from me.”

When IE2 was asked how they thought they influenced S7, they responded with, “…apparently I modeled behavior that S7 values and that S7 thinks is important and that S7 you know agrees with.” IE5 responded similarly to IE2 when asked the same question about S4, “I honestly, I did a few things, but honestly didn’t think that I was that influential for S4, S4 kind of had the drive already for S4, but I’m kind of honored that S4 thought I was influential to S4.”

...spending time in nature.

IE2 discussed where they enjoy spending time in nature.

“I certainly believe in the power of watching the sunrise, um, and I certainly believe in the power of watching the sun set, um, that’s a big part of my hunting these days, um, while I don’t hesitate to shoot something that’s worth eating, um, I spent a hell of a lot more time just watching the woods wake up and watch the woods go to bed, um, and I get as much of a kick out of you know listening to the owls and you know I’ve gotten to listen to coyotes howling back and forth, um, I got to watch a bobcat wake up one
morning and take a crap, which it’s kind of gross, but I’ve never seen a bobcat in the woods, um, it had no idea I was there, um, so I got to watch it do that whole cat stretch thing and wake you know wake up and you know take my first crap of the day and go hunting kind of thing, um, and it wondered off into the, into the swamp, um, yea, I remember that for sure and that means something to me” (IE2).

IE2 talked about several experiences related to spending time in nature, including, “I kind of knew right from the get go that I didn’t want to have anything to do with being stuck inside all day.” IE3 stated something similar to IE2, “I’ve always enjoyed being outdoors and, uh, just, uh, enjoying that, enjoying the natural world and then sharing that love and understanding with others.”

...growing up surrounded by nature.

The first influential educator (IE1) discussed their family and how they ended up growing up in nature.

“So I grew up at 10,000 feet in the Rocky Mountains and my father was always in natural resources, either as a firefighter, as on a roads crew, or finally he moved into law enforcement and I was home schooled and I have three other sisters, all my cousins were female, I’m the only male in my family, so survival for me meant being outdoors with my dog. And we always lived on or near forest service land, so my backyard was pretty much the forest service” (IE1).
The third influential educator (IE3) was also raised in a home surrounded by nature, but also made sure their family had the same experience, so here they discussed their current home.

“I selected a place so I don’t have to go far *laughs* to get into a natural space. Even my office is up on the third floor of the house and I’ve got skylights to look out into the trees. In a sense, I feel like even when I’m sitting at my desk, um, I’m in the trees” (IE3).

The fourth influential educator (IE4) was lucky enough to have family that enjoyed the outdoors as much them.

“So I spent years of my life just running through the woods and just playing and building and exploring on my own and then as I got older that just kind of really fostered my love for being outside and actually getting to experience what’s around me” (IE4).

...“escaping” in nature.

The first influential educator was the first to mention wanting to “escape” in nature when they were discussing the following:

“I have places that I go when I just want to think or just even be and if I just be then the thoughts come and clarity comes, um, most of my best thinking is done in places like that, so the memories of those places where nature allowed me to isolate my time and thought, um, into a really pure form, um, that’s what inspires me to keep doing what I do today” (IE1).

When IE5 was asked if they currently had any place(s) they enjoyed spending time in, in nature, they responded with, “I’ve got actually a trail behind my
house and I love to run my dogs down the trail, which is, that is also probably my next favorite.”

…repeated, regular exposure with those who encouraged them.

The second influential educator (IE2) was influenced by their mom’s dad and discussed his influence on IE2 during the interview.

“…my mom’s dad, um, was a big outdoorsmen, um so I grew up fishing and just kind of wanting to be like Grandpa Peterson and, um, yea was just always into animals, was just always into nature, just from day one as far as I know” (IE2).

The third influential educator (IE3) mentioned three specific people that influenced IE3.

“There were key mentors in my life and at some point, you know, certain people by name, Influential Person 1, Influential Person 2, and Influential Person 3, and two of the three I still keep up with on Facebook to this day, so they had that significant of an impact on my life, um, that here in my 50s that I’m still in contact with them and they’re in their 70s. Um, so having those, um, mentors and teachers certainly affected me and helped get me excited” (IE3).

The fourth influential educator (IE4) went into detail about how their family encouraged them to go outdoors.

“One of the main reasons why I did get involved in environmental education was because of my parents who are not environmentalists by any means actually, but what they did with us when we were kids, we grew up
in a neighborhood if you hit a baseball you could hit the nearest 15 houses. And mom wanted to get out and away from the city and so we actually moved towards more rural” (IE4).

...unique, single encounters with inspiring individuals.

IE1 had a specific moment in their past during a lecture they attended that stuck with them.

“There were a couple of lecturers I recall in my life where somebody said something that I really needed to hear at that particular time and I think they were all or an example of those would be, um, one that has stuck with me for a long time is, um, a regional forester that was supposed to give a whole lecture pretty much summing up everything by saying if you want to be successful in this field, do the jobs that nobody else wants to do. And that meant a lot to me at that time because I was in an academic field with a bunch of people who liked to delegate things and that stuck in my head that you know, there’s a paradigm shift here in being a delegator versus being someone that knows every piece of the system and you do that by doing the jobs that no one else wants to do and what eventually occurs is that you know everything that nobody else knows and then you are actually able to solve problems” (IE1).

The second influential educator (IE2) reflected on a specific professor they remembered who had an impact on their career path.

“…and I ended up taking a class, um, I want to say his name was Influential Person 4, um, I don’t know if that was it, I’m pretty sure it was Influential
Person 4, he was an ed psych, educational psychology guy, um, and he was
talking about real kind of basic what is education, why does it work, and
what are we actually trying to do and all that stuff, just real basic
introduction. Um, and he was a real crackpot, um, he was probably high a
good many of the days he came to class, if not high then hungover, um, but
seemed genuinely to believe in what he was doing and seemed to genuinely
believe in education, um, and its ability to change people and its ability to
effect, um, how people live their lives. Um so I kind of caught the bug for
changing peoples lives from him actually it was educational psychology,
um, that got me into it” (IE2).

The fourth influential educator (IE4) detailed the moment they knew they
wanted to work with animals.

“What got me really excited is we have the department of natural resources
there and a guy came in wearing green and a hat on and he had a racoon on
his shoulder from what I can remember. I thought it was the coolest thing
ever that this guy just strode into our classroom. I was in elementary school,
I can’t recall what grade but he strode right in our classroom with a raccoon
on his shoulder and started educating us about the environment and about
our local animals that are in the area of Missouri and how to deal with
them” (IE4).

...a desire to protect the environment.

The second influential educator (IE2) discussed their current environmental practices that
have been effected by someone else.
“…here on Tybee we’re pissed off because we no longer recycle glass in our community ‘cuz the recyclers can’t make any money off of it. Um, so we’re all ticked off because we have to throw our wine bottles and our beer bottles in the landfill now” (IE2).

IE2 also recounted how they feel upset when they spend the week educating kids about healthy environmental practices, but the children leave a mess behind them.

“Some of my most bitter moments here, um, is when I look too much at how much we don’t change the world around us and, you know, um, yea, we can do a three day two night program and those kids leave on whatever day Wednesday or Friday and there will be candy wrappers and soda cans all over the place” (IE2).

The fourth influential educator (IE4) told the interviewer a specific memory they had from their childhood about how they were protecting the creek they played in by getting the EPA involved.

“I guess didn’t even realize that we were kind of little environmentalist. So we had a farmer who rearranged the creek with a bulldozer and we actually got him fined pretty heavily because we called the EPA on him cuz he had a bulldozer in the creek actually rearranging it how he felt he, it should be, um, and we ended up getting my mom to call the EPA to see and they came out and he was in trouble and all of the other fun stuff” (IE4).

...a desire to solve environmental problems.

IE1 mentioned throughout the interview about how they enjoyed solving problems in their job and how that desire started early on in their career.
“I recognized that if I truly wanted to think, solve some of those delicious problems, I had to get into the political ring and as I tried and as people gave me opportunities, I figured out tools with which I could do that fairly effectively and after a few successes, pretty much cemented in my mind that this is where I needed to be. Frankly, it was after I went to Washington D.C., worked on Capitol Hill for several years, and realized how things get churned through the machine, um, I knew I was in the right place to get stuff done” (IE1).

“My training is in wildlife biology, wildlife diseaseocology, and tolerant chemistry and my research was in an axis of those three sciences, very, um, very basement lab, high-security type stuff and I enjoyed the, the, the academic and mental rigor of that, that, that my, probably my mental heart and love, um, a suite of delicious problems to work on and I’m probably happy doing that anywhere” (IE1).

The fifth influential educator (IE5) discussed what they like teach about and how they like to change their audience’s mind about ecological problems.

“I was learning about the more subtle and nuanced ecological problems and realizing how big they were and yet nobody knew about them. It wasn’t even a thing, uh, being mentioned or commented on even though we are having a massive impact on populations you know… basically changing minds and making people realize that there are issues that they haven’t, that they just, basically just teaching people and keeping people energized for the cause” (IE5).
…enjoying animal interaction.

IE3 was asked if they had a special attachment to an animal and they responded, “I was always the kid that raised his hand to volunteer to take any of the pet animals homes from school during the break.” IE4 mentioned, “I would tell my parents, I want to play with animals and get paid to do it. Uh, my dad being a dad told me to be real son, um, and now I am playing with animals and getting paid to do it.” IE5 also mentioned their love for animals, “I was so excited with a love for animals and so that, uh, basically that’s kind of where I was going and it kind of became a family known thing that IE5 is going to work with animals.”

…autonomous freedom.

The first influential educator (IE1) mentioned how they were home-schooled and how they thought that changed their outlook on life and had an effect on their upper-education when they went to college.

“I was taught not to conform to a system, so by the time I went to college, actually it was a very, it wasn’t a rough introduction. I just remember sitting in, er talking to my colleagues and seeing how they look at the world and thinking, you people, I mean bless you hearts you’ve been raised in a corral your whole life and I recognized that most of the world, um, their ideas were so narrow, so uninformed and so, so composed by the narrative, the tiny narrative around them. Um, it was shocking and, and I have to say pretty disappointing, uh, I was amazed at little true discourse or dialogue you could have with people” (IE1).
The second influential educator (IE2) mentioned that they enjoyed the fact their bosses worked further away from them, so they were given more freedom to run the facility how they wanted.

“If you ever do True Colors, I’m very much a gold person, um, very much, uh, you know, value people trusting me, very much value, um, people thinking I’m competent and proving that I’m competent, um, yea, very much a, um, yea, just let me do my thing kind of person, I don’t want a lot of supervision, I don’t want a lot of babysitting. Um, and they [bosses] do that for me, they let me just kind of do my thing” (IE2).

When IE5 was asked about their mentor style (reactive or proactive), they mentioned “I don’t really plan out my, like I don’t see the journey where I plan on taking somebody you know what I mean? I, we kind of take the journey together if you will to see where it goes.”

Table 3. The breakdown of themes for the influential educator interviews.

<table>
<thead>
<tr>
<th>Theme Number</th>
<th>Theme &amp; Sub-Theme Name</th>
<th>Number of Occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Educating others about the environment</td>
<td>146</td>
</tr>
<tr>
<td>1a</td>
<td>Supporting other educators</td>
<td>38</td>
</tr>
<tr>
<td>1b</td>
<td>Modestly/Humbly impacting others</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>Spending time in nature</td>
<td>84</td>
</tr>
</tbody>
</table>
2a Growing up surrounded by nature
2b “Escaping” in nature

3 Repeated, regular exposure with those who encouraged them

3a Unique, single encounters with inspiring individuals

4 A desire to protect the environment

4a A desire to solve environmental problems

5 Enjoying animal interactions

6 Autonomous freedom
Figure 9. The graphical depiction of the themes discovered from the influential educator interviews.
CHANGE AGENTS

After the researcher discussed with their committee about the impact the influential educators had on their corresponding 4-H EE staff member, they decided influential educator was not the correct term to describe the relationship built between the two. The researcher believes the influential educators are more like change agents based on the encouraging impact they had on their 4-H EE staff member. Majority of the 4-H EE staff members would credit their change agent to why they decided to pursue a career in EE.

SIGNIFICANT LIFE EXPERIENCES (SLE)

As stated in Chapter 2, SLEs are “…the formative influences recalled by people whose lives demonstrate environmental concern” (Chawla, 2010, pg. 11). The researcher applied this theory to environmental educators to try and determine if this theory could be used to figure out why change agents chose EE as a career path. The researcher believed the change agents experienced at least one SLE in their childhood, adolescence, or early adulthood that led them down a career path in EE.

After interviewing several identified change agents, the researcher believed this theory does apply to what was originally thought. For example, IE4 mentioned having a Missouri Department of Natural Resources speaker in their class during elementary school. To this day, the change agent traced that moment back to when they became interested in EE, even saying “…thinking back that was the most excited I’ve ever been about learning in the classroom at that point in time and then from then on it
just kind of stuck with me. I would tell my parents, I want to play with animals and get paid to do it” (IE4).

Another change agent (IE5) mentioned having a similar moment when they were as young as three years old. IE5 said their family went to a zoo when they were three and “...basically ever since then I, that’s, I was so excited with a love for animals and so that, uh, basically that’s kind of where I was going and it kind of became a family known thing that IE5 is going to work with animals” (IE5). Even though the researcher only stated two examples from the change agents, a similar event or a repeated event was mentioned with each of them. These findings agree with Chawla’s (2010) earlier findings in that they were both singular experiences and mundane, everyday tasks that gradually developed into SLEs.

**Sense of Place**

The sense of place theory is about a connection to a “particular geographic setting” (Jorgensen & Stedman, 2006). The researcher believed this theory applied to this study by the change agents remembering a place they either grew up, had a SLE in, or currently enjoy spending time in. Findings from this study showed that this theory did apply to the five change agents the researcher spoke to because each of them recalled at least one place they felt a connection to. The first change agent (IE1) went as far as to say that no one else was allowed in the two places IE1 mentioned to the researcher, saying:

“I have places that I go when I just want to think or just even be and if I just be then the thoughts come and clarity comes, um, most of my best thinking is done in places like that, so the memories of those places where nature
allowed me to isolate my time and thought, um, into a really pure form, um, that’s what inspires me to keep doing what I do today” (IE1).

The second change agent was a hunter and mentioned their local hunting spot as a place they felt connected to:

“I’ve never seen a bobcat in the woods, um, it had no idea I was there, um, so I got to watch it do that whole cat stretch thing and wake you know wake up and you know take my first crap of the day and go hunting kind of thing, um, and it wondered off into the, into the swamp, um, yea, I remember that for sure and that means something to me” (IE2).

These findings agreed with those of other studies using sense of place as a theoretical underpinning in that they are defined by the individual and the experience had at the places (Jorgensen & Stedman, 2005; Cross, 2001).

**Empathy-Altruism Hypothesis**

The empathy-altruism hypothesis “...claims that the prosocial motivation evoked by empathy is directed toward the ultimate goal of increasing the welfare of the person in need” (Batson et. al., 1991). The researcher applied this theory to the special connection the change agents felt for their particular place that was seen through sense of place theory. Instead of “increasing the welfare of the person in need,” they would be increasing the welfare of the place in need (Batson et. al., 1991). In some instances, the change agents were so protective of their special place they involved the EPA:

“I guess didn’t even realize that we were kind of little environmentalist. So we had a farmer who rearranged the creek with a bulldozer and we actually got him fined pretty heavy because we called the EPA on him cuz he had a
bulldozer in the creek actually rearranging it how he felt he, it should be, um, and we ended up getting my mom to call the EPA to see and they came out and he was in trouble and all of the other fun stuff” (IE4).

After the interviews were conducted, the researcher also believed that this theory applied to how humble or modest the change agents were about their influence on the 4-H EE staff members that mentioned their names. As mentioned in Chapter 4, several of the change agents did not consider themselves mentors, “I honestly, I did a few things, but honestly didn’t think that I was that influential for S4, S4 kind of had the drive already for S4, but I’m kind of honored that S4 thought I was influential to S4” (IE5).

The first change agent did not like the word mentoring, but described the relationship they build with people as a:

“…mutual self-revelation and mutual shared interests. Let’s start there. Let’s start with the fact that we both care about some of the same things and let’s talk about some of the same things that we care about and let’s try to learn about how each other sees, thinks, and has questions about some of those same things, rather than you just trying to get or some individual just trying to get some quote unquote wisdom from me” (IE1).

The researcher found similar links between the empathy evoked towards the change agents’ specified place and how they wanted to protect their place against any damage, which led the researcher to believe the empathy-altruism hypothesis applied to this study (Batson et. al., 1991; Batson & Shaw, 1991).
Three Frameworks

After the researcher found the three frameworks appeared in the research conducted, the researcher then created a new model to depict the appearance of each framework in the data (Figure 10). The researcher found that Sense of Place was the most dominant framework based on the fact that each change agent discussed a specific geographic setting they felt a connection to. The second dominant framework was SLE because majority of the change agents shared a story about a single, unique event or a recurring experience that led them down an EE career path. The least dominant framework was the Empathy-Altruism Hypothesis; however, several of the change agents mentioned having empathy for their specific place to the point of taking action against a person that tried to change or harm it. Since Sense of Place was found to be the most dominant framework in the data, in Figure 10 the Sense of Place circle is the largest, followed by SLE, and then Empathy-Altruism Hypothesis.
Figure 10. The illustrated appearance of each dominant framework, the larger the circle, the more dominant the framework.

**Outlier Quotes**

As mentioned in Chapter 3, there were several quotes that stuck out to the researcher that did not belong to any of the six dominant themes discussed in Chapter 4. Several of the change agents mentioned a general feeling of frustration when referencing their jobs and the researcher does not believe this is a theme, but thought it should be mentioned. For example, when IE2 was asked how they would feel if their “place” (the place they feel connected to) were torn down, damaged, or changed, they responded with:

“I think at the end of the day, the human/animal is pretty self destructive, um, and it doesn’t, uh, we are so self-centered isn’t the right word, but it is, um, we cannot see anything beyond our 60 years or our 80 years, you know maybe we can see our kids, um, but we are so self-absorbed and, uh, yea
there is nothing more important than me, um, so we can’t look at any land
or any other critter or even any other human, um, well not consistently, um,
and go oh yea they’re valid too, um ,they have as much a right to be here as
I do…If I talk about it too much, I think we’re all screwed, um, and it’s just
a matter of time before, you know, as a species, we have our own extinction
event, you know, and if we’re lucky there will be a couple of thousand or a
couple ten thousands of us scattered around the world and uh you know and
maybe we don’t die out completely and we can start over, um, and I think
we’ll f*** it up again frankly, um, I want to believe in the whole Star Trek
and we’re all going to evolve and all going to be lovey dovey and you know
we’re going to travel the galaxies and certainly these days I don’t see a
whole lot in the human animal to suggest that we’re capable of that” (IE2).

Revised Theoretical Model

After conducting the interviews with the identified change agents, the
researcher revised the original theoretical model of how the 4-H EE staff members were
being influenced by their identified change agents. The original model stated the change
agents were the only ones providing influence to the 4-H EE staff members and that it
was a one-way relationship between the two of them; however, the interviews
enlightened the researcher to think the 4-H EE staff members had just as much of an
impact on the change agents than the change agents had on the staff members.

Figure 11 is the revised version of the theoretical model because it shows
that both the change agent and the 4-H EE staff member are effecting each other. The
themes determined from the study are included on the graphic to illustrate what the 4-H
EE staff member had received from the change agent and the experiences that assisted the change agent to become who they are. The feedback loop added to the arrow leading from the change agents to the 4-H EE staff members is meant to illustrate the frustration the change agents mentioned in their careers. Even though the change agents mentioned experiencing frustration they continue educating because they are reminded of their importance through little things, such as, being mentioned for this study.

**Recommendations for Research**

Based on the findings from this study, the following recommendations for additional research and exploration can be made:

1. Duplicate this study on a larger scale with a larger sample size.

2. Internationally compare SLEs of environmental educators from different countries. A similar study looking at SLEs was conducted in nine different countries by Palmer et. al. in 2009 and the researcher of this study would like to do something similar, but looking environmental educators and what led them to choose a career in EE.

3. The researcher noticed that some of the change agents (ex. IE1 & IE2) mentioned having their own influencers in their life who encouraged them in their career. The researcher is interested in continuing on down that path and conducting interviews with those influencers to complete a snowball sample-like study. Continuing to interview people others find influential in their life and career could lead to more information known about inspiring individuals.

4. Future research should look into whether change agents are extrinsically or intrinsically motivated to influence people. The researcher found that majority of
the change agents mentioned, did not see themselves as influential and were often surprised to find someone (the 4-H EE staff member) remembered the experiences they shared together.

**Recommendations for Practice**

Based on the findings from this study, the following recommendations for practice can be made:

1. Focusing less on content and more on how the educators should teach. Training should focus more on teaching the trainee how to teach than the content. The researcher learned that the 4-H EE staff members were more likely to mention how the change agent made them feel over how much they knew (Osterberg et. al., 2015; Rosenshine & Furst, 1971). The researcher believes future practices should focus more on the mechanics of teaching over what the content of a program will be because the students will most likely remember how the information made them feel over specifics of the content taught.

2. The researcher also thinks there is importance in story-telling. The 4-H EE staff members would mention aspects of their change agent’s past, which led the researcher to believe that the change agent’s story also had a part to play in the 4-H EE staff member’s life. Future practices should include story-telling to make the information presented more memorable by relating that experience to a specific story shared by the educator. Programs training those pursuing formal and non-formal education (including at the collegiate level) could use story-telling best practices as a way to captivate an audience and move that audience from awareness to action—a pillar of effective EE.
3. Applying what the researcher learned to an academic setting to encourage students in other disciplines.
Figure 11. The revised theoretical model to illustrate the relationship that was determined based on the research findings.
References


doi:10.1080/1350462042000291001


Appendix A

Interview Guide – Phase 1 (4-H Staff)

*Overarching Question: Understanding the characteristics of an influential environmental educator

• What led you to be first involved in 4-H?

  Were there people who stood out who inspired you and or supported you in your development?

  Does one person stand out more than others? Why?

• Give a personal story of a mentor and ask them to describe a person that helped them pursue their career in 4-H.

Interview Guide – Phase 2 (First Interview with Influential Person)

*Overarching Question: What are the life events that stick out to you that led you down a path of influencing others regarding the environment?

What got you excited about learning and teaching about the environment?

  What keeps you excited about the work you do?

We got your name from [insert 4-H staff member name] and he/she described you as an influential environmental educator to them. What do you think to help them in their career path?

  Explain what the staff member said. What do you think about that?

  Was this a conscious action or unconscious?

  Do you do this with others?
Do you consider yourself successful as a mentor/teacher?

Why do you think others consider you successful?

Explain how you became involved with education (assuming they’re involved).

When you were in school (primary or secondary), describe any experiences that might have sparked your interest in the environment?

Is there any particular teacher that sticks out to you when thinking about this?

(If yes) Give specific examples of what the teacher did.

What characteristics or events have inspired you to do the work that you do?

What events keeps you engaged in the work that you do?

What events or people in primary or secondary school stand out as significant in your development?

How were your friends and family involved in the outdoors?

Did they encourage you to go outdoors often?

Is your family currently involved in the work you do?

Describe a special moment that you remember from the outdoors from your childhood.

Tell me about the things you saw, smelled, and felt in that place. Get as specific as possible.

Explain your experiences with the environment (animals, plants, etc.) as a child.

Describe a particular special moment that you had with an animal or plant.

If the moment was positive, could you give an example of a negative experience you had with the outdoors?

How did this influence you?

Have you tried to include something like this in your teaching?
Let’s say for instance this one animal or plant is still alive, what you would do if you learned that someone wanted to harm the animal or plant?

   Talk about the environment the animal was in.
I’m going to tell a story about a place I feel connected to (neighbors backyard) and ask if they have a similar place. Describe how you feel towards that place.

   What would happen if someone wanted to tear it down, damage, or change it?
   How did this place influence you any towards this career path?
   Do you currently have a special place outside that you like to visit? Describe it.
Given all of your experiences you’ve influenced [insert 4-H staff member name here], what advice do you have for someone who is going to have an influence on someone like [insert 4-H staff member name here].
Is there anything else you would like to share with me in regards to this study?

Interview Guide – Phase 3 (Second Interview with Influential Person)
*Overarching Question: What are the life events that stick out to you that led you down a path of influencing others regarding the environment?

The last time we got together [list 3-4 themes] popped up, are there other life events that influenced you that I didn’t pick up on.

   Share the mind-map that I create based on the last interview.
Based on our previous conversation, I noticed you talked about [insert a subject] could you go into more detail about this.

What advice would you give to someone just starting their career as an educator?
How would you describe the importance of these other aspects to that makes a person effective as an educator? (experiences, personal characteristics, education, support, other things?)

Is there anything else you would like to share with me in regards to this study?