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Ecological Teacher Preparation: Rooting Place to Practice

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ECOLOGICAL TEACHER PREPARATION:
ROOTING PLACE TO PRACTICE

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

Rosalind Elise Zimmerman Wright

College of Education and Behavioral Sciences
School of Teacher Education
Educational Studies

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This Dissertation by: Rosalind Elise Zimmerman Wright

Entitled: *Ecological Teacher Preparation: Rooting Place to Practice*

has been approved as meeting the requirement for the Degree of Doctor of Education in College of Education and Behavioral Sciences in School of Teacher Education, Program of Educational Studies

Accepted by the Doctoral Committee

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ABSTRACT

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This study is an exploration of ten faculty perceptions of the perceived influence of an ecological or place based focus in three teacher education programs. The qualities and characteristics of such programs, the influence that such a focus could have on curriculum, and the perceptions of faculty members regarding the interactions between the physical place in which the program resides and curriculum were of particular interest to this study. These questions are investigated by using an educational connoisseurship and criticism methodology. The qualities and characteristics of ecologically focused teacher education programs include immersion and integration, mentorship and reflection, and connection to "local knowledge" (Demarest, 2015). Faculty in the programs studied noted that their perceptions of their programs include an attention to place responsiveness, transfer, and affective domains. The implications of this study include how other teacher education programs can benefit from the utilization of this type of teacher education, the extension of the idea of ecological mindedness (McConnell Moroye & Ingman, 2017) from K-12 into teacher education and development, as well as addition of Place as another dimension of Eisner's Ecology of Schooling (1976).

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PREFACE

As a child, I had the opportunity to attend a summer camp in the Colorado Rocky Mountains. The girls that I spent the summer with became dear friends, and my counselors were my teachers and mentors. Many of my counselors at this summer camp were K-12 teachers themselves who came to work during their summer vacations because they loved the outdoor experience as much as I did. We got to sign up for the things we wanted to do every week; the camp offered day hikes as well as river rafting and the other, typical summer camp activities like arts and crafts. I always chose to pack my weeks with as many 3- and 4- and 5-day backpacking trips as I could. We would load up in the big vans with our heavy backpacks strapped to the top and head out to the trailhead for that week's adventure. We would make our way to some kind of lake or basin to set up a base camp and then would hike every day to a peak or a high alpine pond. Our lunches and dinners were communal -- we cooked together and talked for hours with our mentors and counselors. As we put on our backpacks trip after trip, I could feel my body getting stronger, my lungs able to breathe easier in the high altitude. I began to be able to name different plants, and I learned how to identify weather patterns, stars, and respond to emergency situations with the tools we carried on our backs. Returning home at the end of the term was always bittersweet – I was excited to see my "school friends" and begin a new school year, but couldn't help but feel that these worlds should not feel so far apart.

Years later, I still remember many of the conversations that I had with my counselors on those high peaks, and they still resonate for others to hear and learn from. There was no wall between "school" and "home" in that environment – we learned from one another and from the lives we led beyond the month we got to spend together in the mountains. My life has taken me in many different directions since those summer months, but when I decided to become an educator, I knew that I wanted my teaching practice to resemble something like I felt when I was a kid on top of those mountains with those counselors that I so looked up to.

Although I greatly value my experiences in the wilderness, I soon learned that all places are significant for learning. My own teacher education took place in an urban setting, and my teacher educators consistently stressed the importance of getting to know the community before we even stepped foot into a classroom. On our very first day, we took part in a "scavenger hunt" where we went from landmark to landmark in the community, learning about not only the current population but also the populations that had lived there decades and even centuries prior. We learned about the native animals as well as the local cuisine. We learned about the ecology of the area and the struggles of both the human and the non-human populations and residents. It was a different experience than my vision of school-on-the-mountain, but no less profound and impactful. My mentors and teachers stressed that not only the experiences of each student, but also the place, the cultures, and the local ecology and community were all key informants of the learning that would happen within the classroom.

It is clear that the role of the teacher is one of the most important in terms of student achievement (Darling-Hammond, 2006). I feel lucky my own experience

attended to the place in which our program was located, but I know that each preservice teacher education program is different. As Linda Darling-Hammond (2006) noted about her own teacher education experience, "I was mystified as to why there was so much variation in what teachers had the opportunity to learn and consequently be able to do" (p. x). In understanding how teachers should be trained, there is still much work to be done and many more conversations to be had. One of these conversations concerns the nature, per se, of teacher education programs – the places that they are in and the types of influences that these places have on the curriculum that students seek. Is it possible, after all, to bring the mountaintop experiences of my childhood into the teacher education I hope to do? Can these walls between school/mountain/home/work/play come down so that a bigger vision for education can emerge?

This issue spans beyond any one experience, however. David Orr begins his book, *Ecological Literacy* (1992) with a "recap" of the environmental concerns of the day, noting that:

> …if today is a typical day on planet earth, humans will add fifteen million tons of carbon to the atmosphere, destroy 115 square miles of tropical rainforest, create seventy-two square miles of desert, eliminate between forty to one hundred species, erode seventy-one million tons of topsoil, and add twenty-seven hundred tons of CFCs to the stratosphere, and increase their population by 263,000. (p. 3)

This "snapshot" was written over a decade ago, when Orr foreshadowed that we were testing the "…ecological thresholds and the limits of natural systems…" (1992, p. 3), and these issues are still prevalent, if not even larger and more prominent, then they were when his book was published. There is an ecological imperative to understand what it is to live as connected communities, which include human and non-human entities. As Orr stated, "…we must make unprecedented changes in the way we relate to each other and

to nature…" (1992, p. 3); we must learn, again and again, what it means to inhabit the earth.

There are many ways that one could examine these important ideas and questions regarding education and ecology, but one such approach is to explore the influence of place on teacher preparation and development programs, particularly those who specify place as important to their programs. Although Powers (2000a, 2000b) and McKeown-Ice (2000) study Environmental Education (EE) and its presence in preservice curriculums, and Mastrilli (2005) and Ashmann (2010) investigate how specific states are responding to EE state standards within their states' teacher preparation programs, to date few, if any, studies systematically inquire into the faculty perceptions and influences of a place based pedagogy on teacher preparation or development programs.

Ecological theory provides a lens through which to study such place based programs because it attends to connections, and attempts to heal fragmented aspects of schooling and education and life. Giving students of all ages the tools of "critical reflection and action" (Giroux, 1998, p. 211) serves to enable them to take part in the acute conversations of their time – helping them to sense the connections between themselves, the things they are learning, and their larger application. Such fragments could be seen as "…meaningless through complete removal from the situations in which they are produced and in which they operate" (Dewey, 1930, p. 250). Ecological theory, then, does not offer a clean solution in actionable terms, but rather a new way of thinking and making connections—a suturing of fragments. The aim of this research is to sketch the portrait of this type of teacher education in order to highlight salient qualities of such

programs and to evaluate their potential significance for teacher preparation and

development.

CHAPTER I

INTRODUCTION AND OVERVIEW

Study Rationale and Purpose

"Sustainability," Orr notes, "is about the terms and conditions of human survival, and yet we still educate at all levels as if no such crisis existed. The content of our curriculum and the process of education, with a few notable exceptions, has not changed" (1992, p. 83). Teacher education has been linked in studies and discussions to environmental education (EE) (Ashmann, 2010; Ballantyne, 1995; Beckford, 2008; Esa, 2010; Fien, 1995; Frasier, Gupta, & Krasney, 2015; Heimlich, Braus et al., 2004; Lin, 2002; McKeown-Ice, 2000; Powers, 2004a; Powers, 2004b), education for sustainability (Greenwood, 2010; Hopkins & McKeown, 2005), place (Gruenewald, 2003; Gruenewald, 2008; Miller & Patrizio, 2015; Smith, 2002; Somerville & Rennie, 2012;), and ecology (Moroye & Ingman, 2013; Puk & Stibbards, 2010), to name only a few of the current studies. The standards prepared for the initial preparation of environmental educators by The North American Association for Environmental Education (NAAEE, 2007) in conjunction with the National Council for Accreditation of Teacher Education (NCATE) have helped state-level efforts, such as the Colorado Environmental Education Plan (CEEP, 2010), which was passed as part of the Colorado Kids Outdoor Grant Program Legislation (HB10-1131), put into law in May 2010. This type of legislation suggests the importance placed on ecological education and having educators that are ecologically

literate as a foundational piece of their teacher education. There is an increasing need for classroom teachers to understand EE.

Environmental and ecological education has long been proposed as an important component of a teacher's education (Miller & Patrizio, 2015; Gruenewald, 2003), and while many curricular theorists have called for teacher education to incorporate and address ecological education (Bowers, 1999; Greenwood, 2010; Powers, 2004b), most teacher education programs incorporate EE as a piece, a subheading, of their program makeup, "…another area of specialized study within many colleges of education, and it has further become identified as a branch of science education" (Bowers, 1999). As more states implement EE standards, however, the inquiries into how teacher preparation programs are teaching their preservice educators to incorporate these standards into their emerging practices are being conducted, but primarily as inquiries into what one state is doing (Ashmann, 2010; Mastrilli, 2005). There are a few teacher education programs that make such an ecological focus their primary concern -- the foundation of their teacher education program. This practice could be seen as an attempt to "mainstream" (Ferreira, Ryan, & Tilbury, 2007) EE into teacher education:

> Mainstreaming here refers to the incorporation of ESD [Education for Sustainable Development] philosophy, content and activities within an initial teacher education system to such an extent that ESD becomes embedded within all policies and practices. Mainstreaming change necessitates going beyond the mere addition of ESD into the curriculum, and implies a wide-scale reorientation of the whole initial teacher education system towards sustainability. (p. 226)

An ecological focus is evident in both the coursework and the practical experiences of such programs' preservice teachers, and it is also something that is openly advertised on the program's marketing materials. National inquiries have been conducted with regard to how teacher education programs are incorporating EE into their teacher

preparation programs (Heimlich, Braus, Olivolo, McKeown-Ice, & Barringer-Smith, 2004; McKeown-Ice, 2000), but there have been few, if any, systematic inquiries into entire teacher education programs that declare an ecological or place based focus and the perceptions of that focus by faculty in the program.

Research Questions

Three research questions frame my study:

Q1   What are the qualities and characteristics of ecologically focused teacher education programs?

Q2   How do faculty perceive the ecological focus and its influence on curriculum?

Q3   What is the significance for teacher preparation of discerning the characteristics and faculty perceptions of the ecological focus?

I will next provide my rationale for each research question and offer a better understanding of the terms provided within the questions themselves.

Q1   What are the qualities and characteristics of ecologically focused teacher education programs?

By observing classrooms, holding conversations, and gathering artifacts, this study seeks to understand common, idiosyncratic, and significant themes that emerge. The idea of a point of perspective in a piece of artwork comes to mind here, where the eye is drawn to a central focus. An ecological focus can be thought of along these lines, as it takes the essential components of a teacher education program and directs their focus with the notion of ecology. Through this question, I hope to discern identifying factors of the studied programs that claim an ecological focus.

Q2 How do faculty perceive the ecological focus and its influence on curriculum?

Perceptions can be immediate, or they can span and be formed over a breadth of experiences. A person's understanding of an ecological focus over a period of time and how they have come to understand both the term itself (the nomenclature) and also if this perception has impacted their practice as an educator, their curriculum, or the nature of education itself is important to my study. Though my conversations with faculty members were held in real-time, faculty members also considered their past experiences as they pertained to the questions at hand as well.

Q3 What is the significance for teacher preparation of discerning the characteristics and faculty perceptions of the ecological focus?

Eisner's discussion of evaluation and value – what a school deems as important and how such a declaration impacts the nature of the work done at that school – is of interest to this type of research, as "…students learn in school to read the value code that pervades it" (Eisner, 1985, p. 92). Through this study, it was clear that both the characteristics of the programs and the faculty that teach within them are unique. The lens of Ecological Theory acts as one way to understand the relationships between curriculum, environment, and teacher education, as the theory, "…aims to be responsive to the complex intersections between culture and the natural environment" (Moroye, 2010, p. 308). I describe the significance of my findings with both teacher education and education in general in mind. To that end, I do not provide a bulleted list of recommendations, but rather some conversation-starters that others might begin with as they apply the findings of this study to the focus and aims of their own programs, as well as to the training of future educators.

Synopsis of Methodology

I used Educational Connoisseurship and Criticism (educational criticism) as my methodology for this research project. I was invited to study three sites, with ten total participants between the three sites. I visited each site for five to seven days, during which I interviewed all participants (see Appendix A for Interview Guide) and observed those with whom I was invited to do so. Participants were also invited to share a photo (see Appendix B for Photograph Guide) representing another aspect of the place in which they teach. I also spent time immersing myself in the places themselves to gain a better understanding of the relationship with place expressed by participants.

Educational Connoisseurship and Criticism

Educational Connoisseurship and Criticism (educational criticism) was created by Elliot Eisner at Stanford University. A connoisseur, Eisner explains, is one who "…[refines] the levels of apprehension of the qualities that pervade classrooms" (1976, p. 140) through the act of appreciation. Eisner states that,

> …appreciation does not necessarily mean liking something…Appreciation here means an awareness and an understanding of what one has experienced. Such an awareness provides the basis for judgment" (1976, p. 140).

Eisner states that the role of the critic, then, is to "…disclose…to help us to see" (1976, p. 141) those qualities that pervade the classroom that often escape what one might perceive words to be able to capture. The role of the critic is to "…adumbrate, suggest, imply, connote, render, rather than to attempt to translate…" (Eisner, 1976, p. 141), and to this end, the use of language that is descriptive and metaphorical is useful.

Site Selection and Participants

As I will explain in Chapter Three, I spent time looking for sites that declared a place or ecological focus in their marketing materials. After locating several sites, and speaking with a few, it became clear to me that the wording of my project was going to be too narrow, as I originally focused solely on initial teacher preparation. With the guidance and approval of my research advisor, I applied for an amendment to my IRB to include sites that provided teacher preparation and/or teacher development. After this amendment was approved, I reached out to the Deans of several sites to explain my project and requested permission to reach out to the program directors, or assigned liaisons. After this permission was granted by three sites, I wrote to these individuals to describe my project and see if there was any interest. If interest was expressed, I asked the director or liaison to point me in the direction of two to five potential participants, whom I approached via separate, private emails to ascertain their interest in participating in the project. I was invited to visit three sites (all site names are pseudonyms): Field Research Institute (FSI), where I interviewed five participants: Dylan, Francis, Eduardo, Julie, and John; Mapleroot University (MU), where I interviewed and observed Zeke and Anna, and interviewed Scott; and Shoreline Outdoor Institute (SOI), where I interviewed Claire and Sara.

Data Collection and Analysis

As explain further in Chapter Three, I visited each site for five to seven days. During that period of time, I interviewed and observed participants. My data collection relied primarily on interviews, which was supplemented by observations (if available)

and artifacts. I also collected artifacts, which came in many forms: syllabi, course materials, an immersive run that I took in each area that allowed me to explore the new place that I found myself, as well as a photograph taken by each participant (seen only by the participant and myself) that explained another aspect of the place in which they teach. Participants were sent a copy of their interview transcript as well as their descriptive vignette so that they could have the opportunity to member check them.

Chapter Four details my data analysis procedures. I elaborated upon my interactions with each participant and site in relation to the research questions. I found several pervading themes that I described through Eisner's Ecology of Schooling (1992), in particular through the Structural and Curricular Dimensions. To this ecology, I added another dimension: Place. Though the ecology is useful as it stands, it seemed as if the idea of place, where one teaches and resides, eluded many of the defining aspects of the other dimensions. I further detail my rationale for its inclusion and significance in Chapter Three. Chapter Five builds on the descriptions in Chapter Four by pulling forward more discussion of this type of education's implications for how teachers are trained and/or developed.

Conclusion

The three sites that I had the privilege to visit are not the only ones of their kind in the United States, but they provide insight into how this type of teacher education is perceived by those that teach within it, and how those perceptions are infused into the work being done. Chapter Two describes ecological and place based education, setting the stage for the experiences of the educators that invited me into their lives and classrooms. Chapter Three dives into my chosen methodology and describes the nuances

of Educational Connoisseurship and Criticism further. Chapter Four invites the reader to journey with me to the sites that invited me to visit, sit beside me as I speak to educators, and run alongside me as I process a new place. Chapter Five pulls the through-string towards a better understanding of place based or ecological teacher education as it weaves through the themes, the research questions, and discusses areas in which further research could and should be done.

CHAPTER II

LITERATURE REVIEW

In my review of the literature, I begin with a background of teacher education and how ecology and place play a role. I then move into an explanation of ecological theory as well as discussing its key components and supporters by outlining five key influences that help to construct the theory and describe how those influences are witnessed in current educational studies and in ecological teacher preparation. I then describe the theoretical and practical influences of ecological theory by using Eisner's (1992) ecology of schooling as a heuristic through which to explore the research questions and their current presence in and impact upon educational studies and research in order to situate the necessity for and the relevance of my study.

Teacher Education and Ecology

David Orr (1992) notes that there is a lack of individuals that can be thought of as ecologically literate – those who have "…intimate knowledge of our landscapes" (p. 86). He discusses four reasons that ecological literacy is vital to education, stating that "…all education is environmental education" (p. 90) and that "…the way education occurs is as important as its content" (p. 91). Orr states that such aims draw the mind toward connectivity and openness, fostering care for the earth and for those who inhabit it, which are key characteristics of ecological literacy. Community based experiences strengthen a teacher's preparation (Somerville & Rennie, 2012), and such networks between school

and community are further enhanced through place-based education (Martusewicz, Edmundson, & Lupinacci, 2011). "In the most powerful examples, we see community organizations partnering with teachers and students out in the community to identify and remediate problems, engage inquiry skills and share information that is deeply relevant to their lives (p. 295). Weiner (2000) points out the distinction often seen in education between school reform that can be categorized as "service delivery" (a pre-packaged commodity) versus "ecological" (a holistic network in partnership with the community). Linda Darling-Hammond (2006) noted the importance of an "ecological perspective on child development" (p. 232), in her study of seven different teacher preparation programs. She observed that such an importance was described as paramount for both teacher educators and preservice teachers. Teachers graduating from these programs overwhelmingly voiced the central place of community, and Darling-Hammond stated that "…teachers need…knowledge of individual students and of students within a community—if they are to adapt their teaching to the real contexts in which learning must occur" (2006, p. 235). Scholars agree, however, that:

> Considering the work of teaching and teacher education through an ecological lens enables more nuanced consideration of what is entailed in teaching and learning, how that work is and should be measured, and how preservice teachers might be prepared to take on this complex work. (Cook-Sather & Curl, 2014, p. 99)

Theoretical frameworks for developing ecological perspectives in teacher education programs exist (Cochran-Smith, Ell, Grudnoff, Ludlow, Haigh, & Hill, 2014; Cook-Sather & Curl, 2014), and scholars call for teacher education programs to continue to incorporate place and ecological education into their curriculum (Powers, 2004b; Greenwood, 2010; Bowers, 1999). Studies have been conducted that look into how states

are attending to EE legislation (Ashmann, 2010; Mastrilli, 2005), and there have been nation-wide inquiries conducted that look into how EE is incorporated into teacher education programs (McKeown-Ice, 2000; Heimlich, Braus et al., 2004), but few, if any, systemic inquiries exist that look into teacher education programs that declare an ecological or place-based focus for their entire program and the perceptions of faculty who teach in such programs of that focus.

I now turn to ecological theory in order to better understand its background, supporters, influence, and theoretical and practical implications.

Ecological Theory

The study of ecology speaks of deep roots– very literally the way that we connect to the earth. Ecology derives from the Greek word *oikos* (etymonline.com, 2017), which in English means "house" or "dwelling," and these definitions carry with them a sense of intimate familiarity. The word *theory*, however, comes from the Greek *theoria* (etymonline.com, 2017), which means "contemplation or speculation," which seems to be set apart from the familiarity that the notion of ecology derives. The word "*contemplate*" (etymonline.com, 2017), however, is actually linked to worship and religion – observation for the purpose of adoration. Ecological theory, then, calls for a sense of wonder and adoration as a means of avoiding what Jardine (1990) called "…a sort of ungenerative *stasis*, a desire to hold on to the boundaries already laid out" (p. 115, emphasis original). The key focus of ecological theory is connectivity, the "…ways in which humans interact with their surroundings" (Moroye, 2010, p. 308), and how those connections influence the curriculum that a school presents to its students.

Influences and Support

Moroye (2010) describes many key theorists and theories that help to construct ecological theory, as well as five key principles that provide a framework for ecological education. I will use this framework in an effort to illustrate the many voices and theories that have supported and added to ecological theory. The five elements that are included in this framework of ecological theory are: *an attention to the importance of place, the installation of an ethic of care, providing opportunities for community collaboration, an acquisition of skills and knowledge for sustainable lifestyles,* and *providing critiques of cultural assumptions* (p. 309).

Importance of place. It is hard to deny the impact of geographical location. The tourism industry alone speaks to this: vacationers flock to beaches in search of the ocean, and skiers travel to the mountains to experience the snowy winter. Beyond the vacation, however, a place offers each person a different experience based on their prior experiences and tastes. It is no wonder, then, that place has been called a "nebulous concept" (Orr, 1992, p. 126), but that "…knowledge of a place −where you are and where you come from – is intertwined with knowledge of who you are" (p. 130).

Place-based education is an overarching canopy that encompasses not only the school and all that is taught there, but also the entire community. "Many educators are ready to move beyond environmental education, feeling that the term is too narrow and carries too much baggage" (Sobel, 2013, p. 13), asserting that an integrated curriculum is one means of breaking down the walls between the school and the "real world" beyond school walls.

Ethic of care. Ethics speak of morals, but also of values that provide for a deeper understanding of the relationships at work in the world (Demarest, 2015). What a school values dictates much of what is taught through a the school's curriculums.

The second element of ecological theory, an ethic of care, applies to all those who surround us – both human and non-human, which crosses into ecojustice theory as well (Martusewicz et al., 2011). Through focusing on the commons (Lowenstein, Martusewicz, & Voelker, 2010; Moroye, 2010), meaning those things that are considered to be inherent to all (soil, trees, air, etc.), ecojustice looks at patterns that contribute to "…a cultural crisis-- that is, a crisis in the way people have learned to think and thus behave in relation to larger life systems and toward each other" (Martusewicz, Edmundson, & Lupinacci, 2011, p. 10). Ecojustice education includes both human and nonhuman entities and stresses cultural patterns (Bowers, 2002). Development of an "eco-ethical consciousness" (Martusewicz et al., 2011, p. 22) is a core belief of ecojustice education.

Moroye and Ingman (2013) build on Nel Noddings' ethic of care (2005) and propose the term ecological care, or "…the system of caring relationships at work in a classroom" (p. 599). The authors state that curriculum should be *infused* with care instead of *organized* around care. Their notion of ecological mindedness could be one means of achieving the goal of care-infused curriculum, or "…a habit of mind comprised of, and developed through, three qualities: ecological care, interconnectedness, and ecological integrity" (p. 589).

Community collaboration. Interconnectedness (Moroye & Ingman, 2013) is what binds a community together, and this binding connection includes both human and

non-human entities. The importance of access to the network of community for students is paramount as they grow and understand the relationships that surround them (Martusewicz et al., 2011) and how they fit into and contribute back to those relationships; this type of community participation (Barratt & Barratt Hacking, 2011) is at the heart of place-based education. As "…educative practices can serve to isolate just as they can also serve to connect and foster relationships" (Wattchow & Brown, xxv), the opportunity for students to learn from a wealth of experts in a variety of locations that enlarge a student's worldview is a key piece of ecological theory.

Acquisition of skills and knowledge for sustainable lifestyles. Kress (2000) argued that the notion of design should become a key tenant in any curriculum as it "…makes the learner agentive…and redefine[s] the goal of education as the making of individual dispositions oriented towards innovation, creativity, transformation, and change" (p. 141). Design is often linked with new construction and new ideas, but it could also be linked to a new understanding of the cultural commons, which "…include intergenerational knowledge of food preparation practices, arts, and medicine, among others" (Moroye, 2010, p. 310).

Critiques of cultural assumptions. Bowers (2002) notes that many of our preconceived notions regarding the current state of affairs on this planet are due, in part, to the root metaphors "…encoded in the language that allow[s] for the conceptualization of certain relationships while hiding others" (p. 22). As ecological theory "…reorganizes curricula around the connections between humans and their environment" (Moroye, 2010, p. 309), it would be imperative that such reorganization stress critical thinking that emphasizes ethics about "...the patterns of belief and behavior in our culture"

(Martusewicz et al., 2011, p. 10). Understanding the patterns of history through the lens of ethics enables students to see our connections to one another as well as to the natural environments that we are responsible for. An eco-ethical consciousness (Martusewicz et al., 2011) or ecological consciousness (Morris, 2002) can serve to form an ecological identity (Morris, 2002). These sorts of critiques that create new beginnings (Greene, 1988), or new ways of thinking about our place in the world, are first steps towards such a consciousness.

In terms of ecological theory, the notions of theory and practice are inescapably entwined. We think about the earth in the same moment that we inhabit the earth, and our footprints upon the earth occur even as we wonder about the consequence of the next step. Connelly and Clandinin (1998) note that the terms "theory" and "practice" have become divisive words in the world of education. They are often thought of as residing on the opposite ends of the spectrum: theory relegated to thinking-in-place and practice to action-in-motion. Ecological theory is broad, but can be grounded in practice. To this end, the use of Eisner's (1992) five dimensions of school reform, otherwise known as the ecology of schooling will provide a useful heuristic through which to explore the research questions.

Ecology of Schooling

In a study of four California schools, Eisner asserted that the major issues within schools were ecological in nature, and unable to be solved in isolation – they all had to be considered as a functioning unit in order for true change to occur within the system (Eisner, 1988). These five dimensions include: *the Intentional, the Structural, the Curricular, the Pedagogical,* and *the Evaluative*. Though this structure is sound as it

stands, in order to most fully capture the experiences and ideas brought forward by my

participants and the sites within which they teach, I added the dimension of *Place* to this

framework. This piece will be discussed last, with a conversation about my rationale for

its inclusion. I will discuss practical and theoretical research taking place both as part of

my discussion of each dimension as whole and overt illustrations. By exploring each of

these dimensions, I hope to illustrate the far reach and influence of ecological theory

upon current practice and research.

Intentional

The Intentional dimension falls both in the realm of the overarching aims or goals

of a school/schooling in general, and also in the aims/goals of the specific subjects being

taught and how they are incorporated/envisioned into the curriculum of the particular

institution being examined. "The term *intentions* designates aims or goals that are

explicitly advocated and publicly announced as well as those that are actually employed

in the classroom," (Eisner, 1998, p. 73, emphasis original). Eisner notes that such aims or

goals can be regarded in terms of "…the degree to which they are achieved" (1998, p.

74), but also in terms of "whether they are of value" (1998, p. 74). A school's intentions

and aims/goals/values can vary widely from school to school, and while ecological theory

is not often seen as part of the overt intentions of many educational settings, it could be

seen to inform or describe these intentions. At times, the key tenets of ecological theory

could perhaps find their way into the classroom through the complementary curriculum

(Moroye, 2009), or the ideals held by the teacher and diffused into the classroom (even

without her knowledge of doing so). Jardine (1990) states that by integrating curriculum,

students will begin to see "…glimpses of a truly lived curriculum, a true *curriculum*

vitae" (p. 110, emphasis original), and this can be seen as an issue in terms of a school's intentions, but also part of its structure, which I will discuss in the next section. A school's intentions could be perceived as something that needs to be, as Moroye and Ingman (2013) describe, infused instead of disseminated so that there is a shift of thinking regarding the purposes of an individual school, also calling into question the purpose of what education is actually for. Seeing an overt concern for their environment perpetuated by an intentional curricular decision helps students to internalize a concern for their own communities and for the planet as a whole (Noddings, 2005), otherwise seen as a "cultivation of stewardship" (Sobel, 2013, p. 46). Eisner (1992) stated that "the real test of successful schooling is not what students do in school, but what they do outside of it" (p. 622). It is how the ideas which are put forward in a classroom are actually used by students of their own volition outside of the classroom that make the difference.

Structural

A school's structure goes beyond the actual building where the students gather to attend class; it "…pertain[s] to the ways in which we have organized subjects, time, and roles" (Eisner, 1992, p. 622). Ecological theory is often aligned with EE, which is, at times, seen in conjunction with the science classroom as many schools have each subject "…bounded and kept distinct from others" (Eisner, 1992, p. 622). This separation could serve to fragment a student's perception of how knowledge transfers from inside the classroom to outside in their lives beyond the school day (Sobel, 2013). The notion of an integrated curriculum is not a new conversation (Jardine, 1990), but as schools are "robust institutions" (Eisner, 1992), they could be seen as difficult places to create the

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changes called for by the principles of an integrated curriculum. This, however, is all the more reason to continue to bring up this conversation. In almost any educational research article one picks up, there is at least one mention of the current climate of schools wherein the author calls for a re-examination of what it means to be educated, what education is for, or simply to point out the issue itself. The idea of an integrated curriculum is a tenant of ecological theory, as it pays "…attention to a variety of voices of which the human voice is just one among many" (Moroye, 2010, p. 309). This type of curriculum, one that bridges the many different "subjects" a school divides itself into, calls into question the entire educational process, from how teachers are educated, to the way in which students are separated as they age through their schooling experiences.

Curricular

The curricular choices of some schools can feel disconnected to students when there is no "local knowledge" (Demarest, 2015, p. 9), and this omission could be seen as part of the null curriculum (Flinders, Noddings, & Thornton, 1986; Eisner, 1985; Eisner, 1992), or what is not taught in a classroom. Eisner notes that "…to make judgments about the significance of the content, one must know the content being taught *and* the alternatives to that content within the field" (1998, p. 75, emphasis original)—one must be a connoisseur of curriculum. There is much said to students through these curricular choices, as "…the curriculum becomes both a means for developing modes of thought *and* a symbolic structure that defines a hierarchy of values for the young" (Eisner, 1998, p. 76, emphasis original).

A key piece of place-based education, also a major facet of ecological theory, is the recognition that each place, each community, each neighborhood in which education

occurs requires its own specific lens that takes into account the specific attributes of that

place: its forests, its people's traditions, the migratory patterns of its birds. There is no

formula for the curricular needs of our Nation's students that could be disseminated by

means of a wide sweep, because as each student within a classroom is a unique individual

that processes and learns in their own unique manner, each place is its own entity whose

nuances must be taken into consideration in a similar manner. Ecological theory strives

to emphasize that the curricular choices that a school makes should connect and

reconnect students back to the specifics of the place where they are in a manner that is

authentic to the needs of the place itself. There is a reciprocity. Moroye and Ingman's

(2013) piece entitled *Ecological Mindedness Across the Curriculum* could be seen as an

example of research utilizing the tenets of ecological theory, as it proposes a framework

for "infusing" current curricula with ecological mindedness instead of calling for

complete overhauls of the system as a whole. The authors state that this shift in thinking

could help all students connect to the larger picture of transferring these ideas into their

own lives and worlds beyond the school.

Pedagogical

Eisner (1992) sees pedagogy and curriculum as directly tied, which is also echoed

in the tenets of ecological theory. Gruenewald (2003) states that the point of helping

students to become more aware of the importance of place is a means of re-connecting

students and teachers and classrooms and curriculums to community in a manner similar

to the way in which a fiber artist creates a textile. In such, the process of the creation of

the fiber is as important as the finishing of the final product itself – there is an intimate

connection and understanding. Gruenewald (2003) asserts that places are of profound

pedagogy – they help us to learn, but they also help us to become more profoundly ourselves. "Places are fundamentally pedagogical because they are contexts for human perception and for participation with the phenomenal, ecological, and cultural world" (p. 645).

Gruenewald's (2003, 2008) ideas concerning place as pedagogy are also echoed by place-based educators and authors Demarest (2015) and Sobel (2013), among others, who propose frameworks (as did Gruenewald) for incorporating place-based education into the pedagogies of the school as a means of what Sobel (2013) called evolution in order to enable "…the necessary interpenetration of school, community, and environment" (p. 17). Eisner notes that "…how students experience the curriculum is inextricably related to the way in which it is taught" (1998, p. 77), but that schools should "…enhance what is personally distinctive about teaching" (p. 79) in the same way that places are celebrated for their unique landforms and qualities.

Evaluative

Eisner (1998) stated that evaluation "…concerns the making of value judgments about the quality of some object, situation, or process" (p. 80), which he states also includes one's tone, a raised eyebrow, a high-five – and that the connoisseur should note these things as well. Often, educational evaluations consist only of outcomes based assessment (Eisner, 1992); Eisner's proposal that such evaluations become only one facet of many ways in which teachers and students are evaluated is one that is echoed in the ideals of ecological theory. As Morris' research on ecological consciousness (2002) suggests, this shift is inevitable because it means that we have to release the idea that humans are separate entities from the earth. This shift has been noted to become more

prevalent when opportunities are created for students in nature that allow them to explore

the qualities of ecological mindedness (Moroye & Ingman, 2013) and the aesthetic

dimensions of learning in a nature setting (Burgert, 2013).

Place

As it stands, Eisner's ecology is sound and valuable. For the purposes of my

study, however, there was a constant piece present in the data that seemed to elude any

category of the ecology that I attempted to fit it into, and this could simply be

characterized as the notion of place. As I describe further in Chapter Four, Eisner's

ecology has been added to by other researchers: Uhrmacher and Matthews (2005, as

noted by McConnell Moroye (2017)) added the dimension of school-community

relationships for example, which McConnell Moroye argued, "…this dimension takes on

added significance in relationship to place-consciousness" (2017, p. 5). The relationship

between a place and those that exist in that place are deep and complicated, often rooted

in story or culture. Gruenewald (2003) asserts that:

> …our relationship with places has been obscured by an educational system that
> currently neglects them. That is, schooling often distracts our attention from, and
> distorts our response to, the actual context of our own lives (places). (p. 621,
> parentheses original)

The sites that I studied actively incorporated aspects of place into their teacher training

and development – it was not on the periphery or edged along the seams--it was an

actively nurtured piece of the foundation upon which the rest of the program was built.

As "…places are the ground of direct human experience" (Gruenewald, 2003, p. 623), it

seemed a necessary choice to add the place dimension to Eisner's ecology. Part of this

rooting seemed to align with what Gruenewald (2003) noted:

A theory of place that is concerned with the quality of human-world relationships must first acknowledge that places themselves have something to say. Human beings, in other words, must learn to listen (and otherwise perceive). (p. 624, parentheses original)

CHAPTER III

METHODOLOGY

Teacher education has been a primary focus of scholars of education for decades, and many studies have been conducted in order to ascertain a wide range of information about how students learn. Scholars have used arts and humanities based methodologies in order to better understand teacher education, and examples of arts based studies in teacher education for preservice arts education teachers is present in the literature (Yuan, Stephenson, & Hickman, 2015; Sevigny, 1987; Klein, 2010; among many others), as are methods for incorporating art into current classroom instruction by primary and secondary educators (Uhrmacher & Moroye, 2007). However, a blend of such a humanities based approach paired with an ecological focus as it pertains to teacher educators and their curricular decisions – especially with regard to the setting/place/location of the program -- warrants a deeper look.

Educational Connoisseurship and Criticism

Crafted by Elliot Eisner (1933/2014) at Stanford University. Educational Connoisseurship and Criticism is a qualitative methodology. Also called an educational criticism, this method is likened to the art critic who has the "…difficult task of rendering the essential ineffable qualities constituting works of art into a language that will help others perceive the work more deeply" (Eisner, 1994, p. 213).

A connoisseur is one who appreciates an aspect of the world (Eisner, 1994) and whose experiences have given them "sophisticated levels" (Eisner, 1994, p. 215) of

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understanding within experiences of a certain type or in a certain realm. A connoisseur has a "desire to perceive subtleties" in order to discern the difference between what Eisner called looking versus truly seeing (Eisner, 1994, p. 216). Eisner states that connoisseurship can be developed at any level, and promotes two ways of doing so: attending to happenings of educational life, and having the opportunity to compare these happenings in an effort to hone what one perceives, look for new happenings, and digest what one has seen (Eisner, 1994, p. 217). The tools of educative theories, social sciences, and educational history are essential to the connoisseur (Eisner, 1994, p. 218).

The critic makes public what the connoisseur discerned; one cannot critique without connoisseurship (Eisner, 1998). She is one who serves to "…[render] those ineffable qualities constituting art in a language that makes them vivid" (Eisner, 1985, p. 92). This rendering, or reconstruction (Eisner, 1998), gives the audience "…material to reflect upon, even if we have not been there" (Eisner, 1998, p. 88).

Four Dimensions of Educational Criticism

Eisner proposed four aspects of educational criticism: *Description, Interpretation, Evaluation,* and *Thematics* (Eisner, 1998). Eisner stated that these aspects should not be regarded as "prescriptive" when writing an educational criticism, but rather that they hold a "heuristic utility" (Eisner, 1998, p. 88) – it is with this heuristic that this study is designed and implemented, as I used the structure of the educational criticism as an overarching guide for the organization and progression of my research. I will describe each of these aspects in turn in the following paragraphs.

Descriptive. An educational criticism is, in many ways, closely linked to other types of qualitative research methods, such as the case study or narrative inquiry. The

difference that separates the educational criticism from these other methodologies is the use of literary/artistic descriptive language that attempts to "…identify and characterize, portray, or render in language the relevant qualities of educational life" (Eisner, 1994, p. 226). Eisner described this rendering as an "artistic reconstruction" (p. 226), noting that this reconstruction pays attention to both the pervasive (the items intrinsic and defining to the subject) and component (the items that are unique to the subject and which set it apart) qualities. For all of my sites, and for each of the participants within those sites, I wrote detailed descriptions.

Interpretive. The interpretive aspect focuses on the situation elaborated in the descriptive aspect and asks what the situation means to those involved (Eisner, 1994), "…not to meet the rigorous tests for the 'true experiment,' but to satisfy rationality, to deepen the conversation, to raise fresh questions" (Eisner, 1998, p. 95). The concept of "thick description" (Geertz, as cited in Eisner, 1998) is often utilized in the interpretive aspect, as it takes what was started in the descriptive aspect and further elaborates upon it in a way that allows the reader to ponder the *why* and better understand the concept at hand by relying on and referring to previous studies and research—connecting the description to the relevant literature. Eisner noted that in regards to interpretation:

> …there are so many contingencies and interactive relationships among variables in classrooms that it is much more reasonable to regard theories as guides to perception than as devices that lead to the tight control or precise prediction of events…when critics work with theory, they use it as a tool for purposes of explanation…to satisfy rationality, to deepen the conversation, to raise fresh questions. (1998, p. 95)

The interpretive aspect allowed for me to "…to place in context, to explain, to unwrap, to explicate" (Eisner, 1998, p. 97).

Evaluative. Stakeholders in education want students to achieve in the classroom, but differ on what "success" might look like based on their own values and experiences. Eisner likens this issue back to the educative experiences described by Dewey (as cited in Eisner, 1998): noneducational, miseducative, and educational. Eisner (1994) suggests that this type of judgment call must arise from educational criteria, which suggests that the evaluator must be a kind of a connoisseur in terms of their knowledge of "what works" (p. 231) in education, and this type of value judgment (Eisner, 1998) is a central part of an educational criticism. The evaluative task also includes an act of "appraisal" (Eisner, 1998, p. 99) that cannot arise without a judgment of value. Eisner discusses the issues which arise from evaluations that are "reductionist or simplistic in character" (1998, p. 101) by drawing attention to the differences between evaluations that apply a standard versus those which employ a criterion (1998). It is through the evaluation of participant interaction with and understanding of the place or ecological focus of their program that I was able to traverse to the fourth aspect of educational criticism, the thematic.

Thematic. Eisner (1998) noted that "every particular is also a sample of a larger class" (p. 103). So, through the construction of an educational criticism, one is also looking for pervasive themes that carry throughout the work, and these themes are "…distillations of what has been encountered…they provide a summary of the essential features" (Eisner, 1998, p. 104). The use of these themes can be local -- ideas present throughout one school, for instance -- or representative of a larger audience and set of ideas that stem beyond one classroom or school or district. My analysis of data attended to these ideas as I listened to and transcribed my interviews – coding my data from each individual first, "…because they share some characteristic—the beginning of a pattern"

(Saldana, 2009), and then looked for themes that emerged between individuals at one site. I then looked for themes that arose between sites, which I detail further in Chapters Four and Five.

Study Design and Research Questions

For this study, I traveled to the sites of three teacher education programs in order to explore the perceived connections between place, ecological theory, and teacher education. At each site, I spent five to seven days in order to gather a significant amount of information and also allow myself to be immersed in the place.

In this section, I will first discuss my methods of data collection: interviews, artifact collection, and observations. I will then discuss my sites for study: Field Studies Institute, Mapleroot University, and Shoreline Outdoor Institute (all institutional names are pseudonyms). I conclude with my data collection process and analysis procedures.

My research questions with corresponding methods below:

Table 1

Data Collection and Research Questions

Research Questions	Data Collection Procedures
Q1: What are the qualities and characteristics of ecologically focused teacher education programs?	Observations Interviews Artifacts
Q2: How do faculty perceive the ecological focus and its influence on curriculum?	Interviews Artifacts
Q3: What is the significance for teacher preparation of discerning the characteristics and faculty perceptions of the ecological focus?	Interviews Observations

Interviews and Observations

One-on-one, semi structured (Merriam, 2009), recorded interviews were the primary method of data collection for this portion of the study. I intended for the interviews to be "…guided by a list of questions or issues to be explored," (Merriam, 2009, p. 90) which in this case are inspired by research questions themselves (see Appendix A for Interview Guide). This open structure allowed me to "respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic" (Merriam, 2009, p. 90). I wanted to allow myself the freedom of casting a wide net so that a wide range of responses could be part of the conversation.

After the invitation was extended and participants had expressed interest, I traveled to each location and, using the purposeful sampling procedure (Creswell, 2013), interviewed 2-5 faculty members who teach in the teacher education program at each institution. I emailed the dean or head of the college or site and asked for permission to reach out to the director of the education program, or assigned site liasion, and explain my study, which was granted via an emailed letter. In speaking with each director or assigned site liaison, I asked for permission to study their site, and, if granted, also asked if they could recommend individuals that they thought might be interested in the study. These recommended individuals were approached via individual, private email. During my visits, I recorded the interviews using a digital device which was transferred onto a USB drive that remained in a locked drawer when not in use, along with any notes taken or artifacts given during the interview. Interviews were conducted (after consent was granted through the IRB process and the participant signed an informed consent form) in a place of the participant's choosing, and the interview questions were provided to the

participant prior to our meeting (see Appendix B for Interview Guide). I spoke with each participant for about an hour.

Two of my participants had, at the time of my invitation to their sites, observable experiences in which I could partake, but all participants supplemented their interviews with various artifacts, which could include: syllabi, schedules, and (for some) a photograph. As further explained in Chapter Five as well as later in this methodology, these photographs served as another mode of representation for the participants when thinking about the research questions, and I used these photographs in order to aid in my sketch of the participant's perception of place in each participant's section of this chapter. All participants were given the opportunity to choose their own pseudonyms, as well as to member check their interview transcripts as well as the descriptive vignettes I wrote for each participant. I received a few emails from some participants stating they had received my email or that they had no changes.   I received an email from Zeke (personal communication, March 27, 2018), who noted that the vignette was "detailed, engaging, attentive" but that the quotes used in his vignette could be seen as choppy due to the inclusion of words such as "you know" and "and so," and suggested that I "smooth out the transcription," indicating, however, that this was my choice. I received a similar email from Anna (personal communication, April 4, 2018). She called the narrative "lovely," and had a few areas where she suggested some clarifying points be added to the narrative, which I did. She also indicated where a few of the quoted words in the transcripts from the interviews could be eliminated for clarity. I can see what Zeke and Anna are saying, but chose to keep the interview quotes as they were in order that the selected quotes directly reflected the interview transcripts that had been approved prior.

During the course of our time together, I asked all participants questions from my Interview Guide (See Appendix A) that allowed them to describe and discuss their perception, understanding, and interpretation of the ecological or place based focus of their program. I then analyzed our conversations to better understand how the participants see this focus manifest in the programs, their curriculum, and their experiences with the students.

Artifacts

I initially planned that the artifacts collected in my study would be the "physical objects found within the study setting" (Merriam, 2009, p. 146). This took the form of syllabi, handouts, course materials, as well as giving the participants the opportunity to use a photo that represents another aspect of their place.

The concept of place is a difficult one to convey without a firsthand experience of that place, and, even then, there are layers upon layers of what makes up the story of a place. Often, one mode of expression does not fully convey the full weight of an experience or meaning. In using educational criticism to look more deeply at how teacher educators perceive the connection between where they are and what they do, and giving them the opportunity to articulate this influence in an artistic way, I believe that a wider range of thoughts and ideas were allowed to come forward. Eisner noted, however, that "…method influences how we think and what we are permitted to feel" (1988, p. 19). The way in which we discuss the world at once illuminates some aspects of the world while covering up others, even through their omission. I supplemented my interviews with observations, but only two teachers were available for observations during the times of my visits.

Mindfulness and meditation as artifact. In traveling to each place, my aim was to sketch the landscape described by the participants in my own mind, not to render an understanding of that place that would serve as a complete story. Through this study, I do not seek to speak for these places or for those that inhabit them. In that light, I embarked as a participant in one aspect of this dissertation, which is an immersion in the landscape of the place. I described what I saw in terms of the physical landscape that surrounds the campus, restricting my comments to natural elements that exist in the area: landforms, wildlife, bodies of water, etc. I used narrative in order to capture my experiences. This type of interaction with the landscape helped me as the researcher to better envision the connection that my participants express between the physical place that the teacher education program occurs, as well as offers the opportunity for those who read the study and who, like me, have not been to these places before, the chance to engage with one artistic rendering of the physical landscape as a means of connecting to the place that is being discussed themselves.

I had initially planned to collect natural items from each site such as pinecones, soil, feathers, etc., but the principles of Leave No Trace—engrained in me from my backcountry experiences—made me reconsider. Among the principles are "Leave What You Find" (Leave No Trace Center for Outdoor Ethics, n.d.). Additionally, as some of my sites were in state or national parks, I began to think about other ways in which I could represent this data, and the idea of mindfulness came to me.

While mindfulness is part of the practice of many educators (Dorman, 2015; Buchanan, 2017; among others), my familiarity was more along the lines of journaling about my experiences in the classroom, or other such metacognitive practices. I have

also not spent much time in meditation (which is often ascribed as a component of this type of reflective practice), or so I thought.

I have moved across the country many times and for various reasons, but in each place running has often helped me to better get to know the place in which I find myself. Whether it was an urban area or a rural mountain town, my feet on the trails and sidewalks have helped me to establish, in my mind, a map of the community and surrounding trails and streets. In many locations, I would establish a route – one that I would frequently run. More often than not, this loop met some kind of timed criteria – a loop that I could run in thirty minutes, say. But it was through the repetition that the new began to offer itself to me – I began to acquire insider knowledge of the trails that I would frequent, and noticed the subtle differences that come with time spent in a place. I like to run as a way to process my ideas; the concept of a "flow state" manifests in the form or a heightened awareness as I run – details emerge and concepts solidify. I should offer a disclaimer to say that I am by no means an "expert" runner – I do not compete in races, and though I grew up running cross country, I do not consider myself a distance runner. I recognize the benefits of running for myself, both mentally and physically, but there are stretches of time where running does not fit into my day-to-day life. When I do get a chance to run, I will often stop frequently—walking for a bit to listen to sounds – birds, water – or inspect something more closely – tracks, moss, rocks. If an "expert" runner were to accompany me, they would think that I was distracted from the "goal," indeed, but my goal as I run is to exercise, yes, but also to take the time to see a place more deeply. The more I thought about my running, however, the more I began to tie it to my own personal version of meditation and mindfulness. Through running, I am able

to tune in to the world around me in a manner that is mindful of my surroundings, yet also allows me to step back and look at my own thoughts and ideas from a more analytical, less critical, stance.

> Practicing mindfulness can begin with simply using all five senses—paying attention to what you see, hear, feel, smell, and taste. A mindful person notices the feeling of clothing against her skin, the air going in and out of her nostrils, and the sounds and smells in a room. Noticing without judging, becoming *aware* of those things, is the central tenet of mindfulness. In more advanced forms, mindfulness also includes nonjudgmentally noticing thoughts and emotions. (Buchanan, 2017, p. 71)

At each site I visited, I went running in areas recommended to me by locals in order to both take advantage of an insider's knowledge of the area, but to also experience that place in a way that is authentic to me. The runs were of varying length, depending on the trails prescribed to me and the conditions that the weather presented. I offer these vignettes, entitled Immersive Experiences in each section, in lieu of the actual twigs, the branches, the stones, so that readers may also, in their own way, connect to a place that may be unfamiliar.

Participant photograph artifacts. A significant piece of this research is the perceived connection between the location/place in which the teacher education program is situated and the relationship of that place to the work that the faculty do there. A piece of this reflection and discussion unfolded through giving faculty the option to take a photograph that told a story of the place in which they teach. The way in which a person perceives the world depends largely on their own experiences, but perception "…must be selective in order to focus" (Eisner, 1994, p. 41), so "…the selection of a form of representation is a selection of what can be used to transform a private experience into a public one" (Eisner, 1998, p. 41). Often, one gravitates to one's strengths when

considering which type of representation will best deliver our perceptions to our intended

audiences (a skilled painter might think, first, to paint about a place rather than write

about it, for example), but "the demands of the task guide one's perception" (Eisner,

1998, p. 41) as well, for "…forms of representation that will not take the impress of

particular kinds of experience cannot, by definition, be used to convey them" (Eisner,

1998, p. 41). Artwork is a valuable form of data representation, as "…the actual work of

art is what the product does with and in experience" (Dewey, 1934, p. 1), and has been

represented in current arts-based studies (Stockrocki, 1991; Barone & Eisner, 2012). Arts

based data collection has been used in educational studies through the use of zines (do-it-

yourself style publications) (Klein, 2010), poetry (Richardson, 1993; Wiggins, 2011), as

well as photographs (Settlage, 2004; Loeffler, 2004) among other medium. Artwork is

not separate from life, it is a product of "the human conditions" and "the human

consequences it engenders in actual life-experience" (Dewey, 1934, p.1). Our conceptual

lives are informed by our senses (Eisner, 1994), and the forms of representation that we

choose to illustrate the ways in which we perceive the world will both reveal and conceal

aspects of the world (Eisner, 1994). It is important to invite all types of representation

into these conversations regarding the nature of education as they can aid in painting a

larger portrait of what is already known.

    As noted above, the use of art as a form of data collection is documented within

art education, but not as frequent within the realm of teacher education and development

outside of the discipline of the arts, especially with relation to ecological and place-based

teacher education. If a participant chose not to partake, I asked them if they would be

interested in envisioning the photo they might have taken and including this discussion as part of the interview. These photos were only seen by the researcher and the participant.

Access and Settings for Research

I had a harder time in finding partnerships with sites for this project than I initially thought that I would. In part, this was due to the original wording of my proposal, in which I stated that the sites that I studied would all be geared toward initial teacher preparation. Though such sites exist, there are many more that focus on teacher education and teacher development for both teachers that are already licensed as well as those that have not yet received their licensure. Under the guidance of my research advisor, and after approval from UNC's IRB, I added this language in order to be able to consider a wider range of sites. All of the sites I considered were accredited or in partnership with accredited universities. The three chosen sites overtly claim an ecological or place-based focus in their marketing materials and/or program design. These sites should not be seen as the only ones of their kind in the nation—they are not— but they are programs which seem to be using this language as a substantial part of their program foundation. In order to protect the identities of the programs and those who work within them, each program was given a pseudonym, and the participants at each program also gave themselves pseudonyms. I will detail below the reasons for choosing these sites.

Field Studies Institute. Field Studies Institute (FSI) is a nonprofit organization that has been operating in a small mountain town in the Western United States for decades. FSI is in partnership with several accredited universities in the United States, and is in close proximity to two national parks. There are two main campuses, and

graduate students reside at the original property, located within the boundaries of a national park, where they partake in a year-long cohort program. The newer campus houses several groups of visiting students from across the Nation throughout the year. Graduate students at FSI have the opportunity to apply their credits from this program to several universities with whom they are in partnership towards a range of degrees, including teacher education. FSI is clear in that they are very concerned with place-based education in terms of how they market their programs, noting that a large part of their programming is field-based. I had the opportunity to interview five members of the faculty at FSI during my week-long stay: Dylan, Julie, Francis, Eduardo, and John.

Mapleroot University. Mapleroot University (MU), which resides in the Eastern United States, is a branch of a larger collective of accredited universities that span the Nation. Each branch is unique in terms of location as well as course offerings. Mapleroot focuses on a selection of majors, one of which is Education. There are a wide range of options within the education department, including initial teacher certification as well as masters and undergraduate pathways. The marketing materials are very clear that place and ecology are central foci of the programs that are offered to those that choose to partake in the educational offerings. The graduate programs have residential components during the summer, and utilize a cohort model. During my visit, I was invited to interview three participants: Scott, Anna, and Zeke. Of these three, Anna and Zeke also invited me to observe one of their classes that were occurring during my stay in the area.

Shoreline Outdoor Institute. Shoreline Outdoor Institute (SOI) is located within a state park that borders a large forest and a lake in the Western United States. Close to a small town in this rural area, it is a branch of a larger state university, which is located a

few hours away in a large city. In addition to the cohort of graduates that reside there, groups of K-12 students from across the state visit as part of their school curriculums. Classes take place in the park, as well as in several yurts that are permanent fixtures on the property. The graduate program at SOI is part of the larger university's College of Natural Resources, and graduate students reside on the SOI campus during their program. There are also numerous opportunities for educators who are already working and practicing in the schools to become involved with SOI in terms of teacher development. There are many pathways for graduates of these programs, whether they wish to expand their knowledge of how to incorporate place into their practice, or joining their interests in both science and the outdoors with a path towards teacher education.

Data Analysis

I employed Eisner's model (1998) for an educational criticism, so I also used his structure in terms of my data analysis, which I have described in previous sections, but I will elaborate further how each component aided my data collection: *description, interpretation, evaluation,* and *thematics*.

Description. The descriptive portion of an educational criticism "…enables readers to visualize what a place or process is like. It should help them 'see' the school or classroom the critic is attempting to help them understand" (Eisner, 1998, p. 89). This visualization relies on the use of "descriptive prose" (Eisner, 1998, p. 89), which stemmed from my observation and interview notes, as well as the option for my participants to take a photograph. Eisner (1998) states that this kind of understanding stems from both visualization and emotion that gets conveyed through the writing, noting that "…the writer must be selective in both perception and disclosure" (p. 90). All

participants were given the opportunity to member check their interviews as well as the descriptive vignettes written about their participation in the study.

A piece of my data analysis concerns the photograph that participants had the option to take in response to the research questions. As mentioned previously, arts based data collection has been used in educational studies (Klein, 2010; Richardson, 1993; Wiggins, 2011; Settlage, 2004; Loeffler, 2004). While the photograph taken was considered as a separate from the interviews (see Appendix B for Photograph Guide), they also informed the themes that arose as the pieces were discussed within the interviews and how they relate to the research questions (see Appendix A for Interview Guide). Through their photograph, teacher educators were asked, though not required, to represent the interaction they see between the place in which their program resides and the curriculum they have designed through which they train/teach the preservice teachers enrolled in their program. This act could be considered to fall in the realm of "Green Arts" (Finley, 2011), or art that "…emerges from a sensory awareness of place and empathic awareness of culture…incites action…is a tool for education and for social transformation" (p. 312). It could also be considered Environmental Art (otherwise known as Eco-Art) (Inwood, 2008). There are deep connections between place and art (Inwood, 2008), but few studies have used artwork by teacher educators as a data collection source that illustrates their connection to the place in which their teacher education program resides.

Interpretation. The interpretive element of my data collection relied on:

> …theoretical ideas from the social sciences to account for factors such as the kind of learning in which the children were engaged and the educational and psychological meaning of the teacher's …tactics. (Eisner, 1998, p. 96)

Eisner (1998) notes that it is important to focus on both the actions seen in the classroom, as well as their larger social implications, but cautions that "…no theory in the social sciences can encompass a set of particulars within a specific classroom" (p. 96). The interpretation calls for distance (Eisner, 1998) in order to make sense of what one has seen; "…if description deals with what is, interpretation focuses upon why or how" (Eisner, 1998, p. 98). This "…creation of patterns derived from observation as a basis for explaining and predicting" (Eisner, 1998, p. 98) was of great help as I moved into evaluation and thematics.

Evaluation. Teacher education programs are concerned with the development and growth of teachers who are ready and equipped to teach at the schools in our Nation, however, Eisner (1998) stated that "…although people might agree that education is concerned with fostering growth, what people regard as growth differs" (p. 99). If teacher educators are concerned with giving teachers an education that best prepares them for their future careers as educators, it could be seen as worthwhile to have a better understanding of programs that foster this growth in different ways, such as these schools that claim an ecological and place based focus. Eisner (1998) said that "…if we do not know what we have, there is no way of knowing what direction we ought to take" (p. 100). My sites were not identical, as "…productive unpredictability – creative thinking – is not characterized by conformity to a predetermined standard" (Eisner, 1998, p. 103). My evaluation was geared towards a better understanding of this type of focus, how it is perceived, and the implications of having such a focus on student, teacher, and curriculum.

Thematics . While the thematic section of an educational criticism traditionally comes at the end, I used the information gleaned in my interviews and observations in order to identify "pervasive qualities" of the programs that I observed in order to "identify the recurring messages that pervade" (Eisner, 1998, p. 104). I coded data from my interviews (Saldana, 2009; Creswell, 2013) in order to allow themes to emerge, which began with "lay[ing] out printed interview transcripts, field notes, and other researcher-generated materials" (Saldana, 2009, p. 16) on the side of the page, and annotating the paragraphs by topic. I then Pre-coded (Saldana, 2009), "…circling, highlighting, bolding, underlining, or coloring rich or significant participant quotes or passages that strike [me]" (p. 16). I used preliminary jottings (Saldana, 2009) "…as [I] collect[ed] and format[ted] [my] data, not after all fieldwork has been completed" (p. 17), during my interviews, observations, and field-observations of the place. The number of codes generated was not pre-determined and depended on the conversations.

I listened to the interview transcripts several times while transcribing, while simultaneously looking at the photograph and other artifacts (syllabi, etc.) that the participant gave to me. I, first, engaged with each participant at a single institution – looking for key themes that emerged --and then compared their responses to the other participants from that institution. I followed suit for all three institutions. I then looked at the themes that emerged from each institution in conjunction with the other sites and considered the themes that surfaced. Eisner (1998) notes that "…these themes are distillations of what has been encountered…a summary of the essential features" which can "…also provide clues or cues to the perceptions of other situations" (p. 104). This

could prove helpful to other teacher education programs that are interested in what it could mean to make ecology and place foundational pieces of training a teacher.

Limitations of the Study

Some limitations exist in this study. First, the scheduling of my visits to these sites and the availability of participants in alignment with my own availability presented challenges for what could be observed. While my study relied primarily on interviews which were supplemented by observations, I believe that more participants would have been available for observation in addition to our interview if scheduling had not been a factor. It would be interesting to revisit some of my participants and follow up with observations over time.

Another limitation could come in the form of the diversity of my participants. While some participants did address their background or culture in terms of how it framed their understanding of place and the work that they do, having a wider range in terms of background, culture, and teaching situations could provide additional insights to this study.

A third limitation could be seen as a limitation in terms of perspective. All of my participants were clearly aware of and invested in the place or ecological perspective that their institution utilized. It could be an interesting parallel and follow up to this study to interview graduates within these programs and see how they saw the foci manifest, if at all. Further still, it could be interesting to follow students from these programs into the first years of their teaching careers and see how, if at all, these values infuse their current teaching practices.

Concluding Thought

An understanding of schools that claim a place or ecological focus continues the valuable conversation about ways of educating teachers. Through conversations, place-based observations, and artifact gathering I hope that my addition to the literature is a positive step towards "…[charting] the waters of these new seas and [seeing] what the winds are like" (Eisner, 1998, p. 246).

CHAPTER IV

DESCRIPTIONS OF PLACE BASED AND ECOLOGICAL
TEACHER PREPARATION AND DEVELOPMENT

In this chapter, I describe the course of my study as I experienced it at the three

sites that invited me to visit them. I depict my time at each site through a mixture of

describing my time at each site, and analyzing the data through the descriptions of place

and program focus as explained by my participants in their interviews and classroom

observations. Educational criticism…

> …is a subset of empirical, interpretive inquiry. It overlaps with approaches such
> as ethnographic and case study research because educational criticism often
> involves fieldwork and seeks to contextualize data by attending to the particulars
> of what educational critics observe. (Uhrmacher, Moroye, & Flinders, 2017, p. 3)

 A contextualization that attends to the particulars of my observation is what this chapter

attempts to do through "'…thick description.' Critics describe their settings so that one

gets a feel for what it is like to be there" (Uhrmacher et al., 2017, p. 3). The descriptive

elements of this chapter also allow for a deeper discussion of emerging themes in Chapter

Five, so that the reader might "[attain] an emic point of view or what we call 'seeing

with' – that of the insider" (Uhrmacher et al., 2017, p.3) in both Chapters Four and Five.

I hope that through this blend of description and analysis that readers will have the

opportunity, in their own ways, to connect to each of these places.

Organization of Chapter Four

I used Eisner's question, "What does the situation mean to those involved" (1985,

p. 229) as a guide for my data analysis. In order to answer this question in Chapter Four,

I employed Eisner's (1998, 1992) Ecology of Schooling, which includes attention to the Intentional, Structural, Curricular, and Evaluative Dimensions. Described by Eisner as a means by which to consider educational connoisseurship (1998), this framework is useful as it "provides a structure for perception" (Eisner, 1998, p. 88) of an educational setting. For the purposes of this analysis, I will be focusing on the Structural, and Curricular Dimensions. To this conceptual framework, based upon my findings, I add the concept of *Place* as an element of Eisner's theoretical framework through which to analyze the data. I will next describe each dimension, my rationale for its incorporation, and the organization for the chapter.

The Structural Dimension

The Structural Dimension "…pertain[s] to the ways in which we have organized subjects, time, and roles" (Eisner, 1992, p. 145).   This can incorporate aspects of schooling from the structure of schedules, to the structure of movement through the system, such as grade levels.

> Because the structures people operate within influence many aspects of their lives, their importance can be profound…Understanding the influence of an organizational structure in schools provides a basis for considering its utilities and liabilities, its benefits and its costs. It allows us to consider other ways of doing things. (Eisner, 1998, p. 74-5)

The structure of each program I observed is different, as one might imagine, as those who created each program are different; however, the data revealed common threads. The most prevalent theme relates to the communal or residential aspects of the programs. I mean this in both literal and figurative sense: SOI and FSI were fully residential in nature, and MU had summer residencies and on campus classes, but the ways in which this concept of community was established among cohort members and staff was

different between sites with some areas of overlap. For most participants and programs, community was more than just the way people interact; it included the human and nonhuman sense of community, as well as a shared sense of place.

The Curricular Dimension

Eisner (1998) defines the Curricular dimension as the "…curriculum's content and goals and the activities employed to engage students in it" (p. 75). He states that an important aspect of this dimension is how the curriculum is "…being interpreted by the teacher and understood by the students" (1998, p. 75). Eisner divides the idea of curriculum into two sections, the *intended,* and the *operational.* The *intended* curriculum is "…what we plan to teach – materials, outlines, projected activities and goals" (1992, p. 147). The *operational* curriculum is the "…curriculum that is played out in the context of classroom life" (1992, p. 147). This is more closely aligned to the individual understandings of each participant and how those understandings manifest in their own unique manners of teaching, as "…no intended curriculum can be followed by teachers as a script; the classroom is too uncertain a place for recipes" (Eisner, 1992, pg. 147).

As curricular intentions, the themes of integration and immersion, along with transference, emerged early and were discussed by almost all ten participants. Eisner describes an aspect of transference through the Curricular Dimension when he asks, "Is the content being taught and learned in ways that enable students to apply it or to perceive its relevance to matters outside the subject?" (1998, pgs. 75-6). He also describes the concept of integration when he asks "What is the connection between this subject and other subjects?" (1889, p. 76). These concepts are not interchangeable, but they do seem to support one another in the eyes of many participants.

While each site had many different themes that emerged and were unique to that site, further discussed in Chapter Five, an overarching theme of community emerged early on in data analysis. In Chapter Four, I spend time while discussing the Curricular aspect of Eisner's ecology of education (1992) to elaborate on this theme and how it shapes that participant's understanding of those facets of their program. For each site, I describe other key themes that emerged that were specific to the Curricular Dimension and that were pervasive in that area for each participant at each site.

The Place Dimension

I put forward the concept of *Place* as an addition to Eisner's ecology of schooling. Such additions have been made by previous scholars: Denison "…dropped evaluation and reframed school structure and focused on curriculum, pedagogy, and the forum (setting) structure" (1994, as cited in Uhrmacher et al., 2017, p. 24); Uhrmacher "…added the category of aesthetics" (1991, as cited in Uhrmacher et al., 2017, p. 24); Uhrmacher and Matthews "…added school/classroom-community relationships" (2005, as cited in Uhrmacher et al., 2017, p. 24), with justified and supported rationale for the choices made by each researcher. As I considered the Structural and Curricular Dimensions of the ecology of schooling, there was something else present in my data – something so strong and unable to be accounted for under any other heading or label – and this was the concept of the importance of place. It was expressed by each participant as integral to what they do and a fundamental baseline upon which their program rested (both in advertising materials for the sites as well as in my conversations with participants at each site). Demarest (2015) writes that:

The breadth of ways in which we can understand a place is enhanced by this idea that places hold stories. A storied landscape invites one to explore and interpret and, ultimately, to take away one's own personal meaning. (p. 8)

Each participant described their connection or sense of place in different ways, which is understandable as this relationship is unique to each person. Two main pieces of the interview seemed to directly support the discussion of these questions (supported by other areas of our interview or classroom observations) which was the personal or professional information that they shared at the beginning of the interview, as well as the photograph (if participants chose to share or describe one). These two aspects of the interview seemed the most personal in nature in terms of the participant's feelings and interpretation of the reasons for their coming to that place to live and work, as well as the things they were excited to share in terms of a visual representation of their place and how that translated to their work.

Additionally, ecology is significant because it is rooted *somewhere* – the places in which these sites are located in and of themselves are unique and un-replicable, however transcendent the curriculum taking place in that location might be. Eisner's ecology is important as it is written, but for the purposes of this study, as it was laid out by Eisner, I quickly realized that it would not be able to fully capture this particular aspect of my data. Uhrmacher et al. state that, "…while the framework is useful in and of itself, it is not set in stone" (2017, p. 24). The authors then suggest that the researcher may wish to "…adapt its framework to fit their settings" (2017, p. 24), which is what I endeavored to accomplish here.

In Conclusion

"Description," according to Uhrmacher et al. (2017) "…serves at least two broad functions. First, it provides the evidence on which interpretations are built…The second primary function of criticism is to contextualize a study's results" (p. 38-39). Through the stories told by the participants and my explanations of the time I spent in their areas, it is my hope that readers might have the chance to envision the sound of the fallen leaves underfoot, to feel the cool water swallow them after a long run in the forest, or to be a part of a group of students watching wild geese explode from their hiding spot into the snowy sunlight, so that we might all better understand the influence of place upon the practice of teacher education.

Field Studies Institute

Field Studies Institute (FSI) is a nonprofit operating out of the small western mountain town of Kolby (all landmark names are pseudonyms). FSI has partnered with several accredited universities in order for credits to be transferred toward a degree. The town of Kolby, with its location so close to two national parks, has an undeniable tourist draw -- the main street is dappled with t-shirt shops, as well as high-end hotels and nationally lauded chefs.

FSI has deep community roots, having been in operation for many years, and the school has two main properties: the Kolby Campus and the Fischer Campus. The Fischer Campus—the original FSI property -- is located within the boundaries of Stone National Park, with Vista National Park a short drive away. The Kolby Campus, located on the other side of town, is home to several earth-conscious and newly constructed classrooms

and dormitories that house visiting groups of teachers and students, as well as an K-12 charter school of its own called the Pathways School.

The graduate program at FSI is a year-long residential program, beginning and ending in August. Students live at the Fischer Campus with the rest of their cohort, and have experiences in the field, in local schools, as well as at the other FSI properties. I journeyed to Kolby in the late spring of 2017 and was in the area for seven days. Over the course of my week, I had arranged interviews with five participants: Dylan, Julie, Francis, Eduardo, and John. All of these individuals have varying involvement with the graduate program, but all taught at least one course to the graduates during their year-long residency.

My interactions with each participant are divided into four sections: an introduction to my time with the participant; the Structural Dimension (Eisner, 1992), the Curricular Dimension (Eisner, 1992), and, finally, through adding a dimension to Eisner's ecology: Place.

Dylan

Spring had returned to the area, though today was not evidence of this fact. My interview with Dylan was scheduled for less than an hour after my plane had arrived. As the landing gear dropped into place, I looked out the window to see low-flying clouds across the horizon; the only evidence that I was entering a mountainous area were the roots of the hills themselves shooting starkly with their snow-spackled green into the grey haze above them. The air was crisp and cold – not unseasonable for April in the mountains, but I pulled my coat around me a bit tighter. After acquiring my rental car (due to the weather I opted for a four-wheel drive instead of the front wheel drive I had

thought I would be using) I headed out of town to meet Dylan for my first interview of the week. Dylan had suggested we meet to speak at the Fischer Campus, and as I drove the skyline and mountain vistas I had heard and read about continued to elude me – the cloud cover persisting.

As I turned from the main highway, almost immediately I encountered a herd of buffalo grazing on the left side of the road. Though this was not my first encounter with buffalo, their presence still inspired awe. They stood stock still, chewing and regarding. I looked for any signs of movement – I have seen buffalo hop and bound in a playful manner – but today they stood silent and stalwart. The river, to my right as I drove, had rocky shores and scattered, barren trees. I wondered if I would see a bear, but none presented themselves. My heat was cranked on, and flurries of snow began to drift to the road – I hoped that this new and unfamiliar car would be up to the task, should the road prove to be more rudimentary than I had expected. I headed into the Fisher Campus. The road led me to a small grouping of log cabins, made from what looked like hand-hewn beams. There had been some modern accoutrement added – windows that seemed to be double paned, and metal roofs made with standing seams, but the buildings themselves seemed as if they had been kept to their original design. I felt as if I were stepping into an era gone by. I parked and walked toward the main office building, throwing on my down coat as an added measure against the wind that was now picking up. I stepped over the threshold -- the ceilings were low, and the interior of the building looked similar to the exterior – a large log cabin of sorts that had plaster keeping the elements out of the cracks in the beams. I was directed to the upstairs by some individuals working in a small computer lab to where Dylan was waiting for me in a

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communal office. The walls were pine and covered with various maps, posters, student work and natural artifacts all the way up to the vaulted tongue and groove ceiling.   Dylan was working at his station, as was a colleague of his at another station. I introduced myself to Dylan and he greeted me warmly. He asked where we would like to set up, and I told him wherever he felt comfortable. He introduced me to his colleague and we walked to another office that he thought we could use. The office was similar in style to the communal workplace, but as it was built off of a hallway, a portion of the roof did not allow for the height of a person to sit under it, though a small window had been built into this low wall.

Dylan's energy was apparent for the work he was doing – he smiled and laughed often during our conversation as he spoke of his work at FSI. We sat across from one another – he at the desk and I in a series of chairs along the wall.

Paths of experience: The structural dimension. Dylan noted that the program is "interesting" as it is academically driven, but also rooted in place – which seemed to suggest that he perceives this combination as unique. "You know, from my first experiences…here in the park and talking with faculty in the program when I was a student, it was very clear that…the place centered nature of this graduate program was a big driver for what they did." Dylan regarded this as a quality that was attractive to him as a student in the program – something that helped him to decide to attend FSI himself.

Dylan's recognition of place-as-"driver" for program structure was apparent throughout our conversation. "Things were…very much built around the opportunities of the greater Vista National Park Ecosystem," he says. Dylan extends this idea to the classroom, stating that,

> The fact that we are lucky enough to be located in Stone National Park…provides
> us with very rich…classroom environments for our students. You know, we teach
> with a front country setting but we…take our classes on backcountry trips.

The classroom is the outdoors and the outdoors is the classroom – these entities, for

Dylan, are interchangeable and entwined.

There were many times that Dylan refers to specific geographic and geologic

areas as grounding points for the stories he tells, which seemed to suggest that an

insider's knowledge of not only the area, but also its history, is a piece of the perception

of the area which is important in both making distinctions and also informing how classes

would be taught. "Teaching geology in this landscape is ideal, you know?" Dylan notes,

implying that the landscape is a key informant in how one might go about teaching the

particular aspects of geology at hand. This notion seemed to extend to an idea that there

were stories embedded in the soil, and that an understanding of place would unlock these

stories. Dylan noted that he "like[s] the stories that rocks tell us about a place," referring

to their geologic history, but also their interaction with people. "Yeah, I think inherently

the nature of this ecosystem lends itself to certain stories of place or environmental issues

that inform how we teach."

Dylan often refers to the "place triangle" as an organization-wide means of

understanding place, where the three sides of the triangle represented different aspects of

place: ecological understanding, economics, and social/cultural understanding. The

organization also has key competencies that Dylan sees as manifestations of a student's

progress through the program:

> If I looked at a graduate student at the end of this program, what should they be
> able to do? What should they know? What skills, what effective…feelings are
> they going to have about these places and these experiences? And those

competencies inform our process for curriculum development. So, I'd say that's at the heart of it.

The concept of Understanding by Design (Wiggins & McTighe, 2005) and backwards design was related to this conversation as a means by which these goals are achieved from a curricular design standpoint. Dylan was quick to note, however, that there are myriad paths that students take towards the achievement of these competencies, stating that, "…you can't assume that there is one path to [the graduate students'] growth…they grow in different ways toward achieving those competencies." He said that while the outcomes should be thought about through cognition and skills standpoints, they should also be considered through affective domains:

> You know, that heart-mind connection is important to experiencing a place and valuing that place. 'How did you feel about it at the end of your experience? During your experience? How does that inform you actions as a leader? As an educator?

The purpose of the program is to educate teachers, yes, but Dylan also expresses the importance the program places on "experiencing and valuing" place as a foundational piece of its structure and how this understanding translates to and directly informs the actions the graduate students take as educators.

Experiential education – being able to "do research" is another central focus for the program structure. Dylan recalls his experience as a graduate student understanding what it is to be a field researcher:

> Field research can be abstract if, as an undergraduate, like, "Oh yea, someone studied wolves…that sounds romantic and cool." [laughs] Versus, "Wow, it's snowing sideways in April and I'm up to here post-holing in snow, and trying to get a telemetry location, and it's really *hard*! [laughs] Yeah. Yeah, so the direct experience I think is one of those things that, for me personally, I value greatly. Let's go *do* science outdoors and experience that, not just read about people who do science. And, um… I think that connection to place through that blend of

science inquiry is one of those things that, really, for me, resonates. That we experience place as scientists. We use inquiry as a way to understand place.

How scientists are perceived translates into the equation of immersion for Dylan as well. He notes that students often change their ideas about what it means to "do" science through an activity where they dress up as scientists at the beginning of the program. "They'll take out the eye protection, the lab coat, and the pocket protector, and put all that stuff on." But towards the end of the program, "they're drawing sort of things that look much more like them… You know, so their perception of a scientist, what you need to do science, changes fundamentally as they experience doing science, and that's cool to me." The immersive structure of the program is so all-encompassing that it calls for a re-defining of self and what it means to take on the work of education.

To everything there is a season: The curricular dimension. The following two descriptions, *Stone soup* and *Put me in, coach!*, illustrate key aspects of the curricular structure that Dylan embellishes in our conversation.

Stone soup. Dylan sees community as a core element of the program and a main aspect of its defining qualities. He shares a story with me about communal meals exemplified in this element:

> I think…sharing meals is definitely an aspect of community that connects strongly with me. And…I remember my first…year here as a graduate student…Getting snowed in on this campus, and kinda doing the stone soup thing with my cohort. Like, "What do we have?" and "I have this, and you have that and let's see what we can do!" …we did it together and so it just represented that type of spirit of like, "We're here together, let's figure it out. We're snowed in."

The unique setting of the program makes for unique situations. The cohort lives on the Fischer campus together for a year, which is an isolated place and prone to issues such as being snowed in when the weather deems it to be. In this manner, facets of place that are

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unique to that place, such as weather patterns, dictate the experience that students will have.

A large part of the curriculum of the program are the teaching experiences that graduate students have in the field and in the classroom. It seems as if the kind of relationship-driven camaraderie and fellowship that Dylan notes among cohort members above seems to stem into the way that feedback is also perceived within the program, as mentorship, feedback, and growth were words that were often repeated in our conversation. "[Feedback is] relationship driven. You need to know people and understand how they work." The relationship needs to be established prior to the feedback in order for it to be authentic for that individual. Dylan describes the community as "entertainment," as well as "familial," which can be attributed to the isolation of the campus, in part:

> You see people at their best, and you see people at their worst, and you learn to support each other through those experiences. And it's not a big community. You can't…can't hide…you have a bad day and we're going to know [laughs].

Dylan extends this community to the larger alumni network that stays very involved beyond a graduate student's graduation date.

Put me in, coach! Of clear value to Dylan and key to his description of the program are the mentored aspects of the program – both that he experienced as a graduate student and also as a faculty member.   "That connection that students have to their faculty mentors and that level of feedback…adds a unique aspect to the program…where we get to know our students well, they get to know us well." A fundamental understanding between who it is giving the feedback and who it is that is receiving the

feedback adds a layer of authenticity to the feedback itself – Dylan seems to imply that it

means something more due to this relationship:

> [The relationship with their mentor coaches] allows us to…to really think about that growth mindset and the deliberate practice necessary to develop as an educator, because we see…we see it happening with our students. We recognize where those strengths are, where those areas of growth are, and can coach specifically to that. And sometimes you'll see that in shorter practica experiences, you know, than in-service teacher training. But they sometimes go by so quick; they might be four to six weeks total over that entire educator, um, development program. And you're going to see growth in that time, but … it feels more snapshot-like compared to the amount of contact time I think we have with those grad students here. So, I think that's one element that I really appreciate.

There are certain competencies that graduates are expected to understand, and

these are the criterion that their coaches use to help them establish Smart Goals

throughout the year. This idea of a growth mindset seems to be a key piece of the

mentorship model in place, iterative in nature. "It is really a dialogue. It's…less of a, 'I

checked the box. Here's your feedback. Go away!'" [laughs]

Setting goals are one way that these conversations are manifested, but also

through their practical experiences in the field. Graduate students have opportunities to

immerse themselves in a local issue in Dylan's class for the purpose of understanding

"the complexity of the issue" from different points of view. Dylan calls these discussions

"mediations," stating that they are not debates. "You still represent a stakeholder, but you

are trying to come to a solution that everybody can live with. Out of that, its consensus,

not win/lose." He notes that problem solving, in addition to inquiry based thinking, is a

good idea for those immersed in place based education:

> There's a real issue with complex solutions, and there's not necessarily a single answer to this. What do you do? How do you balance those aspects of that place triangle to come to good decisions that are evidence based?

The idea of graduate student's eventual self-actualization with regard to the outcomes…

> …feels full circle for us as faculty…because you see your students that starts with you back in August and they're in a position…where they're, you know closer to that self-actualization as educators. They're mentoring and leading the programs...

This idea highlights the cyclical and to-everything-there-is-a-season-feel of the program. Even when the faculty is beginning with a new cohort, Dylan says that this, too, "…is rewarding on its own."

Finding home: The place dimension. Dylan came to the Stone Mountain area after completing his undergraduate degree. Coming to the Stone Mountains and taking part in the activities it offered was a full body experience for Dylan—enveloping all senses:

> When I saw this area, I was immediately drawn in by it. The smells of the developing fir in the forest, and the…mountains themselves…climbing up those peaks and skiing just completely blew me away. That connection was really strong. I love mountain experiences.

> The immediacy of the connection that Dylan noted with the area pervaded our

conversation, stating that, "..this range really just stuck with me, and I knew that I wanted to come back."

> After graduation, he began doing seasonal work at Vista National Park as a park

ranger, and happened upon a FSI group that changed his trajectory:

> I ran into a group [of FSI students] out birding early one morning by the meadows and inquired, like, 'What are you guys doing? This is really cool!'" The students responded that they were graduate students, to which Dylan replied, "'Really? Where are you in school?' Thinking, like, far away somewhere. And they were like, 'Here. This is our ornithology class.

Dylan realized that staying in the area for graduate school was a possibility, and he enrolled at FSI. Having not one, but two National Parks in close proximity was an undeniable draw for Dylan, and a "really unique opportunity" for a site of study.

Dylan notes several times that his affection for the area is strong, but having grown up in the east, he describes his understanding of the area in a way one might describe making a new friend:

> [I] hiked everything that I possibly could, climbed everything that I could find…that affinity just continued to grow in this place. And it's still there; it's always one of those places that I can go to recharge and... take some energy back out of my time in the mountains here.

Dylan left the area after his graduate program ended, noting that the area never left his heart. "I always had that…kind of fondness for this place as an outdoor classroom. And the philosophy of this program…influenced me as an educator." When the opportunity arose for him to apply for a job back at FSI, he jumped at the opportunity and settled with his family in the area, noting that "…there are some of those places you find in life that…just quickly feel like home, and this is one of those for me."

Dylan stated that a phenological understanding of place was critical to his perception of place, stating that the FSI staff takes "the perspective of, as naturalists, looking at things phenologically." This recognition of recurring patterns present in the area, from migrations to snow depths, are noticed by staff and students and tie into the seasonality that shapes many of the units they create. "In our winter environment, we cross country ski and snowshoe to go out in the field, and our curriculum emphasis shifts a little bit. There are things that we can do while in the winter, like snow science, and as we move into spring, we add another layer to that." Seasonality seems regarded in the

same way that place was considered for curricular intentions – it is a jumping off point; a notion of *this is where we begin*, they seem to say.

Dylan in conclusion. Dylan escorted me downstairs and to the front of the building, stopping by the communal copy room to copy some of his course materials and syllabi for me. He asked what my plans were for the area, and I said that I was excited to explore if he had any recommendations. I noted that I had seen a local yoga studio near my hotel, and he seemed familiar, stating that it was a neat place. He gave a few suggestions for other places to look into in town, and I suddenly recalled that I had not packed shoes that were really appropriate for snow…I would have to add that to my list of things to look for in town.

Dylan headed to his next appointment, and I walked back out to the car. As I walked, I zipped my down coat up against the wind that had started to flock and swirl the snow in little pellets – I could tell that there would be more to come that evening, and I hustled to my car in the parking lot to get warm and prepare for the drive back to town.

Julie

A few days later, I headed to FSI's Kolby Campus, located a few miles from the heart of town, but in the opposite direction. Julie and I had planned to meet the day prior at the Fischer campus, but due to heavy snow drifts, she had called in the morning to see if we could reschedule for the next day at the Kolby Campus. Indeed, the day of our scheduled interview had brought a good deal of snow; even in town, walking to get coffee in the morning prior to Julie's call, the sidewalks were already covered. Julie thought that the roads to the Fischer Campus might be impassable, noting that it was almost impossible for her to get in that morning. It seemed as if this was a common

occurrence. With the distance from town and the roads snowed in, I could now envision

what he might have been talking about. I told Julie that it would be just fine to

reschedule – I did not have an interview scheduled for the following day.

The next day, the cold and grey skies persisted from the day before, but the heavy

snow had dissipated. I had dressed in a warm wool sweater under my windproof jacket

to help combat the wind and occasional snow flurries. The clouds were a bit higher than

the day before, but still clung to the tops of the foothills, obscuring the higher crags I

imagined from view. As I drove, a large curtain of snow stood before the car, inviting me

into a snow globe. There were slight streams of sunlight in the far distance – the horizon

visible to my left. As I drove into the fence of snow the wind picked up, but in a way that

made the flakes dance as if suspended by translucent fishing tippet from the low ceiling

of clouds. I turned onto a small road, the pavement a winding taper of asphalt. As the

road continued at a slight incline, there was a meadow of sorts where several modern

buildings stood facing one another. I noticed how busy the site was. Everywhere was the

sound of children playing and laughing. Doors opened and slammed on what seemed to

be dormitories, and groups of school children poured from another building in the

distance into an open field to play. It appeared that one group was departing – there were

middle school aged children with laundry bags slung over their shoulders, full of what I

guessed was bedding and clothes from their time here. I entered what seemed to be the

main building. There were individuals on conference calls in the lobby, others working

on their computers in their laps – the feeling seemed very flexible – the employees

seemed comfortable working wherever they felt they should in the manner that they

should work. The building felt cozy and warm, both in aesthetic and its actual heat, and I

wondered how a place with so many widows could be this efficiently heated. The snow had stopped as I looked out the windows, though the clouds hung around, and the view was clear down the valley. Many days where the sun is not present can feel, in my experience, bleak and drained of color. This was not the case on this day – the area seemed richly saturated, as if the slight precipitation had turned a control on the vibrancy of pigmentation. The matted green grasses seemed emerald in hue, and the reds that peeked through the tall, feathered grasses shone like garnets.

A woman came through the hallway door with a hurried gait and wide smile and introduced herself as Julie. She led me past the reception area to a small conference room. We chatted familiarly – exchanging pleasantries about the weather and my experience so far in Kolby.

Foreseeing the changes: The structural dimension. Julie described the framework for FSI's educational model as "curriculum neutral," but acknowledged that through their focus on community and place, that "learning is more relevant to students" (Julie, personal communication, August 21, 2017). The educational framework manifests in the curriculum of the teachers within the program, but also in how the teachers "…[guide] the development of intentional culture, community leadership, and a place-based education approach" (Julie, personal communication, August 21, 2017).

> So, at the core are these ideas of inquiry and design – so inquiring about a place and then making changes making some kind of impact in a place. And then the three competencies are around the outside of the framework, so those are more broadly our educational approach. .. Figuring out how teachers who are change agents in their classrooms, in their schools and communities, and giving them tools for that.

FSI has been "honing in on" their framework for place based education. For an institution that has been present in the area for decades, it is safe to say that this conversation has happened at least a few times. "I think [the educational framework] has been a very valuable tool for us to think about how do we blend, you know, with understanding place – what we know is important for education." It is evident that Julie places a great deal of importance on *how* the graduates experience both the setting of the program and the content of the program. These things that Julie states are important for education go back to the educational framework, where primary considerations include using best practices in order to make learning relevant, promoting student engagement, and emphasizing activism in their own communities. Deciding, within their educational framework…

> …what educational approach – which, for us is largely place based --but what are the key principles of place based learning and how then do we model and make sure to teach to those in what we are doing. So, I think..yeah..that… framework for place based learning has been valuable.

A manifestation of these frameworks is the curriculum that is constructed for the graduates. Julie acknowledges that ecology is a central focus in FSI's curricular construction, stating that many of the courses for the graduates have the word "ecology" in them and that they have the chance to "[think] about the relationships within the aspects of the living and non-living environments, but also between the social systems and the environment" within these courses. Many of the courses that FSI has in the graduate program have seasonal emphases, Julie notes, in which the curriculum harnesses aspects of the season (snow, snowmelt, etc.) as part of the construction of the activities they will do within that course.

Another manifestation of these frameworks are the program outcomes, which

Julie describes as a "foundation" for her own curricular design:

> Yeah, I try very hard to use backwards design … so starting with the end in mind. Whether that's essential questions or enduring understanding, but what do we want the outcomes or change to be at the end of the program, and thinking about how we measure it and what do we do to get there, um, is important.

Julie's thoughtfulness is evident as we speak; she weighs each word as she utters it.

Something interesting is going to happen: The curricular dimension. The

following two depictions, *A place's volume,* and *Come together* illustrate key aspects of

the curricular structure that Julie describes in our time together.

A place's volume. Julie is on the move quite often, heading to different

communities to facilitate programs for FSI. At each site she journeys to, Julie considers:

> …what we can try to learn about that place and being responsive to hearing the people who live in those communities about what makes their place special and unique, and trying to…leverage aspects of those places.

"Leveraging" aspects of place in order to connect with participants and where they come

from is one of the ways that Julie sees FSI's model as successful. She notes that the same

goes for the graduate program, in that the FSI campus that graduate students find

themselves in for their residency is not their home, and work must be done in order to

foster an affinity for this new place that Julie describes along the lines of a connection to

heart as well as to mind. Julie says that they, "[do] what we can to connect them to this

place…to inspire them to go back in their community." The point, in terms of the

program focus, of inspiring a connection to FSI and to the Kolby area isn't so they will

stay there in Kolby, but rather to get students to look at their own places more deeply and

take these ideas back with them. Julie calls this "transference of place," and it involves

"…trying to help them think [about]…what makes their place special." It is clear that

those who work at FSI see that there is something special about that place – the place where the program resides – and that this unique setting makes the program itself that much more unique and, in turn, special.

Julie follows this discussion with the idea that, "…transference of place is an aspect of place based education" that they consider. The notion of transference ties directly, for Julie, into the idea of understanding the special subtleties of places:

> … one of the things that a teacher shared with me once, and I just thought this was so profound…She said that (her town name) is a really subtle place – it's not so direct as Kolby in inspiring you, and I think …helping students find that in their place…

In a later note Julie sent me, she adds that they attempt to:

> …acknowledge all aspects of place – whether they are flattering or not. Through uncovering some of the more subtle and unflattering aspects of place, it helps people to connect more strongly to these places and care about them more. (Julie, personal communication, August 21, 2017)

Julie illustrates these ideas of subtleties and nuance of place:

> One really transformative experience was this school in (city, state) on the edge of the (desert name). And we drove up to it – and they knew that we weren't going anywhere in busses, that we were going to walk around the school grounds it and they looked at it and they were like, "What are we doing to do here?" Like, "There is nothing!" And then, as soon as we got out, they were…it was the best rock picking you could possibly do. The grad. students, their pants were literally falling down, they were putting so many rocks in their pockets. [laughs]…

Julie acknowledges that it takes time to peel back these layers in order to best understand place and the unique aspects that a new space can offer. In recalling this story, Julie told it to me in a way that attempts to convey the mystery the students felt as well as the knowledge that Julie held that *something* interesting was about to happen.

Equity in the community is an important focus of the program that coincides with this conversation of being responsive to a place, and ensuring that students are taking part

in many different facets of a larger conversation or topic. Experiential opportunities are one way that Julie sees the transference of place manifest for the graduates. "I think just trying to connect to place on different scales here, like the Fischer Campus, and Stone National Park, but then Kolby and the towns of Kolby. I think it's been important to just help the grad. students see the different layers in this community." The layers are best understood through these experiential opportunities, and Julie states that

> …it is easy to be embedded in [the Fischer Campus] and just immersed in the Fischer Campus area, which is pretty spectacular. And then … …I'm on the equity theme…the inequities of this town are really apparent. Just driving into town, or picking up a paper and reading about housing challenges.

Come together. Time is often in short supply among teachers, and Julie states that there is a conscious emphasis on "making sure that there is time for interaction and conversation" among the graduate students and other teachers that come for development. Immersive experiences as a community in the area are planned in order to promote both modeling and community: "…we all go out on a hike together their first day here and then the second or third week they are here, we do a backpacking trip together to the Stone National Park." The purpose of these communal experiences in nature are to promote both community among the graduates, but also modeling how to do this while simultaneously implementing the course design and outcomes of the program. To "…have an immersive experience where they develop – we really, not they – develop a community really closely." Julie notes here that "we, really," as in the faculty members, not "they," the students, are shaping the development of the community at the beginning of the program. This implies that the faculty deems this aspect of community as significant and in need of nurturing. This modeling then leads into a gradual release model, where the faculty,

…step away and they, the grad student community, are coming together and working through things themselves also. So, I think that's an aspect of how do we not be the sole ones who are holding that and the creators of the intentional culture, but we want them to develop that themselves also in their groups also.

The concept of community manifests also as an extension beyond the group, as students begin to discover their own identities within the program and Kolby area, establishing their own personal connection to place.

Peeling back the layers: The place dimension. Julie began our conversation of FSI by returning in her memories to her hometown, which she described as having a "deep science connection" due to several renowned laboratories in the area and the minds that they drew to the town. She, herself, spent some time working in the labs after completing her degree, but felt that something was missing. She decided to pursue another route, and began to work at a summer camp that she had gone to as a child. This summer camp experience made her begin to wonder if her these two worlds of academia and summer camp could meld, "[I] wanted to see what I could find at the intersection of a summer camp kind of experience and teaching." A return to school was the clear first step in her mind, and Julie discovered a program that she called "really similar to Field Studies Institute." Between work on her degree and continued work at the summer camp, Julie designed a capstone project that allowed her to set out on a "big road trip of environmental education centers in the western US," where she, "…interviewed educators and observed programs about how they were connecting students to place." Through her study, FSI was one of the sites that she observed. After her study had concluded, she set up an internship at the FSI Pathways School and notes she "just have been here ever since." Her role has changed a bit at FSI, moving from faculty coach, to

graduate program educator, to "more of an administrator role," but still works with the graduate students teaching a place based education course.

Julie's perception of "place" extends beyond the Kolby area, however. For some time, FSI has begun to work with teachers in other cities and other countries. Julie has had the opportunity to work with one country in particular, with teachers coming to the FSI campus, and FSI educators also traveling there. Julie chose to share a photo with me that represented another aspect of the place in which she teaches, and the photo she shared was from her time in this country. The photo is taken looking down a street at evening time. The eye travels down the photo to the mountain peaks in the distance, led by both the lines of the buildings on either side of the street, the row of cars at the bottom of the photo, and the tall line of flagpoles burnishing brightly colored flags at the same level as the mountain. The buildings on the left and right appear to be painted yellow and ochre, though the twilight may be making their colors seem more robust and saturated. The flags, however, are certainly brightly colored: yellows and reds and blues. From the edge of each flag, smaller prayer flags are attached. The fabric of the prayer flags are almost translucent, allowing the viewer to see through them what lies behind. There are low foothills that appear to be covered with green trees, and the taller mountain stand sentinel behind – a clear tree line visible and no apparent vegetation on top. There is a small cloud peeking over the edge of the mountain, and the setting sun casts scattered shadows over the craggy layers of the peak. Julie notes that she chose the photo because "I think it just captures a little bit about what is unique about (country). But it also…maybe what's universal about it, too…" This unique/universality discussion that Julie refers to here is important, as it is something that is emphasized in the graduate

program as well – what things about the place are unique and held only by that place? What things can be seen in other places that are similar? Julie refers to what FSI calls the "place triangle" as a way to consider place, stating that "culture stands out so strongly there, and the other aspects of what is challenging in that place are evident in this picture but they are not as direct…or maybe they are taken for granted." She notes that the culture is something that the people of the country have worked hard to preserve "as kind of evidenced by prayer flags…," and that the economy is also undergoing changes. "…all the cars are imported, and all the fuel for vehicles is imported, and what impact does that have on the economy there, and on the ecology of that place?"

This idea of understanding the layers of place translates back to the work Julie does at FSI, and is clearly important to her as she considers where she lives and works. "I think [understanding a place] has to come experientially from appreciating different places."

Place, for Julie, is not simply the locality of the area in which she spends her time, but it is also an awareness of others that inhabit it with her – their stories and their struggles. This idea reminds me of the benches one sees in a museum, where one can sit at a distance and observe a painting. Julie seems to say that, yes, an overview is important, but it is also important to walk closer and look at the brushstrokes – where is the paint thicker? Where can you see the woven canvas beneath?

Julie in conclusion. After our conversation, Julie asked if I would like a tour of the campus, to which I heartily agreed. I packed up my bag and put my warmer jacket back on, as it appeared to had gotten darker outside during the course of our conversation. We went out the hallway through which I had come, and through the large

foyer to the communal sidewalk. We walked up the path, into the complex of buildings.

They all looked similar in style to the one we had been in – the construction appeared to

maximize sunlight intake into the buildings, and the outsides and insides of all the

buildings looked as if it were made of pieces of wood pressed into one sheet. The floors,

Julie told me, were all radiant heating systems, which was more efficient. We explored

multipurpose rooms, the cafeteria, and some of the dormitories. There were rooms full of

gear: rows and rows of backpacks, snowshoes, ski poles, extra warm clothes, stoves, and

tents, among many other things. I found myself in awe at the amount of resources these

room afforded – how the students had the potential to take on so many different

adventures for so many different purposes with this gear in hand and at their disposal.

I wondered what the experiences of the children who had been in these areas and

what those experiences had meant to them. Would they remember these moments twenty

years later and smile at their experiences? Were trajectories changed in the week that

they spent here? Were there new doors opened to them as they explored this part of the

world? What did they take back with them to their own places? I thought of all these

things as Julie and I made our way back to the main office building. I asked if there were

fun places to go tour the area and/or go on a run. Julie pointed out a few areas on a map

in the room, and said that grizzly bears had been sighted by a few staff members right

inside of the Vista National Park – she pointed out the road if I wanted to go drive that

way myself. She pointed out a few places where people might run, but stated that

wildlife is often present on those trails. We shook hands and said goodbye, and I walked

out the doors toward my car in the parking lot. The clouds still hung low, but the sky

seemed lighter—more buoyant somehow.

Immersive Experience: My Run in the
Field Studies Institute Area

The weekend brought warmer weather and clear skies. As I had no interviews scheduled, I decided to venture into the area and go on a run. In addition to my participants, I surveyed many individuals in the town of Kolby -- baristas, restaurant servers, shopkeepers – for their recommendations for outdoor activities and places where I could go running. I was warned that many trails would be full of mud and unthawed snow due to the recent influx of weather. I was told of many trails that runners took in the area, and a few of the names kept emerging in conversations as the ones to take, but almost every person with whom I spoke would follow up their recommendations with a suggestion that I wear bear bells (a belt reminiscent of Santa's sled that jingles as one runs in order to alert wildlife to one's presence and avoid surprise encounters) or carry bear spray (which looks like a mini fire extinguisher). I was not the owner of either of these items, though I had seen them for purchase in two local sporting goods stores in town. I inspected such a canister at an aforementioned sporting goods store, and the label claimed that a trajectory from human to bear of five to ten feet was ideal. Needless to say, the prospect of encountering an advancing bear and waiting until such proximity was achieved made me leery. I began to ask for routes that were "safe"—ones that did not have the immediate dangers associated with trial running in a mountainous and forested area where moose and grizzly bears make their homes. I was directed to a large open space in the area, told that this area would be safe(er) for a run alone.

I set out in the morning, first heading to a trail west of town that some had told me should be passable, though muddy. The trailhead was at the end of a long road that would through the neighborhoods. I could tell that snow wading might still be a

possibility as the berms of the trail were still dappled white in the shady sections. There were also several notices about bear sightings, including what to do upon encountering a bear ("Do not run!"). I turned the car back and made my way to the open space.

Within the open space, the dirt road I drove was flanked by numerous, established places for pulling over – I guessed in order to observe wildlife from the car. I pulled into one of these pull-offs and got out. The light was stark and bright – reflecting off the yellow clay pigment of the road, whose palette was echoed again by the tall grasses of a marsh and the outcrop of rocks ahead. I began to run.

The air was crisp and thin and dry – like drinking the unfiltered sunlight. There was a small rise in the road, and I began to approach the outcrop, noticing movement. What I thought initially and from a distance to be rocks, as my eyes refocused I saw were actually sheep – bighorn sheep. Though far away, they began to run – their feet more nimble and delicate than my clumsy, noisy gait. They sprinted across the rocks like water bugs on a still pond, and then stood stock-still – not even a pebble out of place – disappearing into the rocks behind them once again.

So wide was the road, so smooth and without impediment for my foot to snag and bring me down, that I didn't realize I had been watching the sheep on the outcrop while still running. Bringing my eyes to the earth again, I came to a dead stop in my tracks, for there, directly next to the road, was another herd of sheep standing still as stones and regarding me. There were babies next to their mothers, sitting as if on chaise lounges in a salon. Bigger boys and men with varying horn sizes standing up – it was a still life, or one of those old-time family photos where no one is smiling. The only betrayal was the jowl movement of some that mechanically continued to chew. They chewed and

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regarded me—not a wary regarding…it almost felt haughty. These creatures, so connected that they can dance on rocks with their hard-hooved feet, and then there was I – in my neon running shorts and top, my "rugged" running shoes. I suddenly felt self-conscious and painfully aware of my distance from nature in that moment. How I had feared the prospect of the bears – even now eyeing the distant border of trees for the lumber of a lost one coming down to this open plain – and even nervous in my solitude. I felt a desire to be comfortable, but in the sweeping grandeur of this landscape I felt, once more, humbled. One sheep was quite close – I crossed the road to the other side and stood still, looking at them looking at me. They soon returned to what they'd been doing – grooming, chewing, basking—having, apparently, determined that I was nothing to them.

I turned back towards my car and began to run again—noticing that the sheep on the distant hill had started to run once more – having also turned back toward the direction I was running. They charged down the outcrop and out into the wide open plain and marsh. I had not even noticed a large herd sitting in the field – the groups converged easily, as if they knew one another (perhaps they did). As I watched I realized, again, that I was still running. The air was warmer, albeit still dry. A few cars passed, and more were coming – passengers regarding me with what registered on their faces as a bit of confusion, though there had been one other walker that I had run by on my return. Two women walked towards me as I reach my parking spot – they smiled and nodded, briefly pausing their conversations to acknowledge my presence. I stretched and admired the view before loading up and heading back to town.

Francis

As I got into my car, the sky was a bright, crisp blue. There were a few scattered clouds racing across this high sky – their plumage tailing behind like horse tails flying across a plain. I was heading back to the Fischer Campus that morning to speak with Francis, and as I drove, the road seemed to rise beneath me. There were people out and about – more so than the last handful of snowy and cloudy days – driving behind me toward the parks and back towards the town of Kolby as well. The height of the tourist season, I assumed, was still to come in mid-summer, but the town seemed to bustle with an energy uncharacteristic of a mountain town in late April.

The road seemed to gain in elevation a bit before I made my turn towards the Fischer Campus, something I had not noticed in days prior due to the cloud cover, and as we seemed to rise, so, too, did a series of peaks on the horizon. They were jagged and immense – I wondered what kind of approach one would take to even begin to think about climbing them, so steep and sharp was the change from foothill to alpine terrain. Were ropes necessary? The clouds that streamed in the sky skirted behind the peaks – or maybe this was my own perception as I drove onward.

As I made my turn, I almost expected to see the buffalo in the field as I had before – so stock-still had they been that I hardly expected them to move, regardless how nomadic. I rounded the bend towards the final turn-off and slammed on the brakes, as I found myself in the middle of a massive herd of elk. Though none attempted to cross the road as I approached ever so slowly; some turned their heads slightly to regard me, and others simply went about their business without, it would seem, even noticing I was there. Their coats were gold and flax, matted and tufted all at once. I saw a smattering of

antlers protruding from the crowd as I went by, but the majority seemed to be females. There were some smaller bodies that I noticed, but many were huddled close to mama and milk. Viewing this site from a passing car seemed touristic, indeed. I wanted to get out, to walk among them, to lay in the nests their large bodies pressed into the grass. I smiled to myself, grateful for the chance to see such a movement, and resumed my drive.

As I pulled into the Fischer campus, I was able to see a bit more of the layout of the buildings and the distant view of the Stone Mountains framed by aspen and pine. The ground was a little mushy from the precipitation of the last few days, and my shoes sank a bit into the soft dirt. I walked across a set of wooden planks resting over a marshy draw and onto the road that led to the main offices, and as I passed through the reeds on either side, a handful of birds took to the sky, startled, I suppose, by my loud gait. As I walked, I could tell that the meeting house building to the right was occupied – a visiting school group, perhaps? There were a few people on the front porch of the offices sitting in some weathered chairs packing their backpacks up. I could tell they were going to be out for at least one evening – tents and poles strapped to the sides of the packs and sleeping pads propped against the porch rails for later packing. I went inside to the main office, and was told that Francis was in a meeting next door that should be about to finish. I said that I could wait, and spent my time looking around the building. I noticed that there was a board on the front wall where students and teachers both had appeared to have written things they noticed about the area – sightings, per se. They had the type of animal, followed by who had seen it, where it had been seen, and when. There was another box for students to follow up with additional dates of sighting after that initial one. Some of

the entries included bluebird and bear, among others. I recalled Dylan's discussion of nature patterns and how the staff incorporated this into their weekly reflective practices.

I heard the chatter of children in the room next to the main office, and peered into the window of the door where I saw several groups of kids with a handful of older individuals – graduate students? – leading an activity. I watched for a minute, then walked back into the sunshine that I had been missing the last few days. As I strolled down the road, I saw that the meeting was dispersing, and a group of what I assumed were instructors were walking toward me. One man made eye contact and smiled, "Elise?" I smiled back and shook Frances' hand as we headed into the building. We made our way to the second floor of offices, and Frances said that he shared the communal office in the front but that we could use one of the back offices for our conversation. He stopped by his desk to grab his chosen photo, acknowledging that he had a hard time choosing just one.

The room we stepped into was on the West side of the building, so it did not get as much of the passive solar as the other side – it was a bit darker. The ceiling dropped to a low pitch on the side of the room, where another small window in the wall was to be found. There were a few bookshelves in the room and a few couches and chairs, all made of what appeared to be pine wood. Frances sat in a chair by the door, and I sat on a couch across from him that had been well used--I sank into a familiar slope of the couch.

Fostering educational leaders: The structural dimension. Francis noted that the amount of time students in FSI's graduate program spend in the field is substantial, "…when they are done, they will have 600-700 hours of field teaching experience." He likens this statistic to his own experiences in his former classroom when getting a new

student teacher, "…they would come and have very little teaching experience, and very little…theory courses…There wasn't any, basically, educational leadership" Within these field teaching experiences, Francis encourages his students to "try something new" after exploring the different philosophies and models of education.

Finding balance is a conversation had in the program, as visiting groups can come back to back, giving the graduates a limited number of days off. "The amount of teaching experience that they get, it is amazing…it may not be by design…basically, for three weeks we have three different school groups come in, and they will only have a couple days off. It's exhausting, but that also happens when you are teaching." Francis refers here to the busy schedule of K-12 teachers who often work beyond their paid hours to attend extracurricular activities, coach, mentor, tutor, hold conferences, make phone calls, grade, etc., which he relates to the busy schedule the graduates experience at FSI. "…There's that conversation, especially with the millennials…of, you know, how do you balance that work/play/time off kind of a thing…" It is apparent that Francis cares that his students understand this busy teacher lifestyle and work schedule and that they are able to balance their "worlds" prior to entering their own classrooms. His concern for his students well-being is evident through this conversation.

"What happened here?": The curricular dimension. The following three descriptions, *Tracks in the snow, A shared vision,* and *Tools of the trade*, illustrate key aspects of the curricular structure that Francis describes in our conversation.

Tracks in the snow. Francis stated that the graduate curriculum "is pretty much designed throughout the process of what we want them to teach." This idea harkens back to Understanding by Design (Wiggins & McTighe, 2005) and a backwards design style of

approach, but as we speak, it becomes more evident that Francis seems to begin with the land in mind as well, instead of just the end of the lesson in mind. "It's just being able to use what this place throws at you. To be able to go out and teach, yeah, amazing stuff that you see here." He notes that having background knowledge in terms of insider knowledge of the area helps when making those curricular choices, but that being able to act upon a spontaneous moment encountered with a group and to use that as the starting point for a lesson or a teachable moment is important:

> I think you need to have that background knowledge…but I think, definitely, when you are taking kids outside and walking around, I think its defiantly being able to -- I stop and see a track. "Ok, now we are going to teach about tracking, and we are going to teach about what animal could have made this track." And then, that just opens up teaching about this place, and teaching observation skills. Or you see a grouse run across, "and now we will teach about grouse." So, I think that's definitely what we try to do here is that science is on that level-- for an educator to be able to stop and have a basic knowledge of the grouse, or a black tail weasel, or whatever. To be able to stop and be able to talk about that, or let kids…kids make a hypothesis about what they see. You know, "What do you think?" So, yeah, it's just endless here. This winter, there was a wolf kill 100 yards down. Killed a moose, and it was during the height of this storm. So, before-- it was about a two-week storm –so, before the storm happened, there was nothing down there. And then during, it was down in the ditch creek bottom, these wolves had killed this moose, and there was still stuff left. Not a lot left. But so, you take the kids down, "What happened here?" You know, talking about that.

Francis recognizes the opportunity that the land presents and makes a conscious choice to incorporate that opportunity into what he had already planned for that day. In making this choice, it would seem that, at times, the plan might get shifted or change altogether. Asking students the question that Francis posed of "What happened here?" is an open-ended question that begs a wide range of answers and hypotheses. The point of Francis

asking this question is not to corral students to a specific answer, but instead to get them thinking scientifically based on what they observe and to make educated guesses.

The role that place plays in curricular construction is also an important component that Francis takes into consideration. He says that the accomplishing of curricular goals is important to think about in conjunction with where those goals will be accomplished:

> …if you are going to teach a geology lesson, where do you want to do that? What's your site selection? You aren't going to sit in a conifer forest where you can't see anything and try to teach geology, so that's something we really try to work with the grads. is the spot that they pick to teach what they want. Which I think is important.

Francis states that they are use a "5 E model" for lesson planning, which is broken into the elements of engagement, exploration, explanation, elaboration, and evaluation (Bybee, 2014, p. 12), but that he encourages students to "develop their own techniques" as they construct their plans. This freedom in curricular construction must feel liberating to students as they try on different styles from the mentors that they encounter and come to terms with the one that works best for them.

A shared vision. Mentorship is embedded as a piece of this gradual release for the graduate students, and many students, Francis notices, miss this piece after the program ends: "A lot of grads come back and they want to work here…because of that collaborative experience that they have, and that shared vision that we have as graduate program." Many graduates clearly feel a connection to the FSI area and model after the program, so much so that in seeking places of employment that many want to continue to work in the model under which they were trained.

Francis has "5-6 grads" in his teaching practicum whom he will help to develop goals for their practicum. They will also submit lessons to Francis as part of this

practicum, and Francis will give them feedback, which ranges from individual meetings to advising students to revise and resubmit. Many area teachers that have been working with FSI over the years will be invited to contribute to the plans created by students – taking a look at a plan to see if it makes sense or if they could take it into the field and teach it. He will also observe his students as they teach in the field, asking them what they would like for him to focus on. Collaboration as a community of educators (both within the program and with partnering teachers in local schools) is a focus that Francis sees as unique. He notes that the graduates act as leaders for the visiting schools that come to stay, saying that one student who will host was watching him this morning for the purposes of learning how to lead that particular meeting for a different group:

> So, she was watching me, so she'll be able to go ahead next week and lead that meeting. At the end of the day, we debrief each field day. We talk about what went well. We talk about… how they felt their day went. So, they get things as far as this…this community aspect that you never would get as a classroom teacher.

> The focus of the program changes seasonally – a balance between practice and

theory; in the fall, they focus on classroom management, and in the winter, "…we still build on the fall goals, but talk to them about how do you teach in the snow? How do you teach kids skiing in the winter? How do you teach when it is twenty below, or ten below…". Aspects of the mentorship extend to the natural elements that present themselves and how they tie into and effect the class.

Tools of the trade. As FSI prepares for a visiting group of K-12 students, the graduate faculty decide which graduate students are going to lead each group that is coming to visit. Prior to the visit, the graduate students:

> …are tasked to come up with a place based summary of that school that they are hosting…So they will look at…the geographical location of the school. They will

dig around to find the economic information of the town that they are from…any information that they can about our clientele that is coming.

This understanding of the places from which each group hails helps the graduate students and the program leaders better understand how to plan for that visiting school as they hear what those schools hope to gain from their time spent at FSI.

> Francis sees FSI as place based program that is:

> …teaching [the graduate students] how to teach in this place, giving them the tools to go out and be effective field educators… And then how do they take and relate what they learn here to their place at home…how do we give them the tools here to go back at home and look differently at their community and their, um…their place back home.

This idea relates back to the notion of transference and equipping students with the tools they need in order to go back to their places and better understand them and/or teach in them. Francis notes that one of these tools is the landscape itself, and that through a better understanding of the "local knowledge" (Demarest, 2015) produces more teachable moments that the students can experience.

> [The tools are the] …teachable moments. It's being…it's having the knowledge of this place. And that would be true of--to go back to the other question—I think you need knowledge if the desert landscape if you are teaching in (place), or you need more of the aquatic moraine landscape if you are at the ocean.

Francis sees teachers who can harness and utilize this local knowledge as having more tools at their disposal to utilize as they consider how to teach.

"That's where my soul is": The place dimension. Francis started our conversation by discussing his past as a "long-time classroom teacher," teaching, initially, fifth and sixth grades. During that time, he and another teacher decided to start an outdoor education camp. "I always believed in place based education and getting my kids outside without attaching a name to it," he said, noting that this experience

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influenced his decision to begin a school garden and to incorporate permaculture and worms into his science classes for the thirty-one years that he taught there. On a skiing visit to the FSI region, he happened upon an article about FSI and "…was like 'Holy cow!' [FSI was] doing stuff as an organization that I was doing in my classroom by myself." He decided to pursue a position at FSI, and was hired as part of the graduate program.

Francis shared a photo of the Stone Mountain range with me as part of his description of the place in which he teaches. It is a winter photo, the foreground is covered with snow, with trees and shrubs and twigs protruding from the white as if clambering together to get a feel for the sunshine. The snow is not fresh and "new" – but pocketed and dimpled as if animals had been crossing it recently, or just from the steady beat of the sun coming down. The foreground seems to dip off into a valley or ravine, as the middle of the photo depicts several larger pine trees reaching to the sky, but the viewer only sees half of their full breadth. The mid-ground extends to the foot of the mountains, which rocket to the sky without, it appears in the photo, the gentle push from a series of foothills. The tree line is sudden and scattered in the photo, no gentle slopes of aspen with their undulating ribbon lines leading up to the taller pines and then the barren tundra – we see craggy rocks, sharp shadows, peaks towering high above clouds with the sun shining down sharp and clear. There are several avalanche paths that are clear, though none seem to have run recently. "[The photo] represents two things for me, because I love the winter…you have to love winter to live here." Francis continued:

> But just the sheer beauty of this place…you look at the Stone Mountains –I never get tired of looking at them. And I think if you were able to sit and just watch them, they change by the minute, just the lighting. And I think that kind of represents, not only just the beauty of what we have here, not only in the Stone

Mountains, but on earth, that we need to take care of that. That there are so many beautiful places, and even getting kids to go back and see the beauty of their place at their home, even if its downtown (city). It just represents to me-- I think some of its just the peacefulness of the place-- but it also represents to me the ecological diversity, I guess, of so many different places.

Francis sees that care for all places embodied in the photo of his place – the Stone Mountains -- and stresses the importance of helping others to see what he sees. He also noted another aspect of living in the area – the connection he feels goes beyond the place and into the realm of connectivity to the spiritual:

… and I love the mountains, I guess, but you get that. That's where my soul is: living in the mountains and doing things in the mountains. So, I guess that's why I picked that.

Francis describes the area as "wild," and he goes on to say that this wildness:

…is super special… the wildness of this place really speaks to your soul, you know what I mean? I've never experienced anything like it. Even Kolby, and that's beautiful. And there are coyotes, and deer, and elk… but not like this, just, holy cow!

Again, Francis notes that his perception of place is directly tied to his own soul and spirituality. The way that he speaks is alive with wonder – he seems almost bewildered that he has the incredible gift of living in such a place and experiencing such sights on a daily basis.

Francis in conclusion. As our conversation came to an end, Francis asked if I had done any exploration of the area. I noted that I had been given some recommendations as to different places I might explore. I asked for his recommendations, and he pondered the thought for a moment. One of his coworkers passed by the door, and Francis called him over asking where he thought I might go running. Both listed a few places, asking if I minded getting a little muddy. I replied that I did not, but neither party had been on the recommended trails and did not know the

current conditions. Francis walked me downstairs and to the front door. We shook hands

and I walked back toward the parking lot, a group of what appeared to be middle school

aged children sat with a graduate student by the front door doing an investigation. They

smiled and regarded me as I walked to my car across the small board bridge. The birds

erupted from the shrubs once more and took flight in myriad directions. I squinted as I

followed their flight into the blue sky and sun.

Eduardo

My last day in the area, I had two interviews scheduled, and the first was with

Eduardo back on the Fischer Campus. The day was sunny and bold and bright, and my

drive up to the campus seemed more familiar – I recognized landmarks and looked for

things I had noticed on drives prior. I made my turn, looking again for bison or elk, but

saw none this time. I was early, so I decided to keep driving and see where the road

might take me. I drove until I saw a slight parking area that overlooked a sagebrush and

other wild-ish looking plants that rambled toward the main highway and the foothills and

the mountains. Cars sped back and forth on the distant road, and I watched them scurry

from my vantage. No one seemed to be around…except for the massive buffalo standing

far – but not too far – from where I stood standing on the large pine tree blockade that

marked my parking spot. He was in profile, standing still – so blended into the landscape

that I had noticed him second to the view. I saw some movement to my left and then a

sudden flash of blue – a bluebird darted from a naked stand of brush. The vibrancy of its

wings startled me; almost a Caribbean blue that stood out from the spring thaw

surrounding it. It was as if this bird was literally dragging spring into the area, channeling

the colors to come as summer returned. Another car, a large SUV, came down the road

and parked next to me. A young couple came out and pointed at the buffalo. They took photos of the landscape and laughed and talked. I returned to my car and glanced at the bison through my windshield – still standing in profile, still standing still. I turned back onto the road toward the Fischer Campus and found myself noticing more and more blazes of blue darting from the bushes and into the sky as I drove – how had I not noticed before?

The structure of relating to place: The structural dimension. Eduardo began his discussion of FSI's place based education model by remarking that the idea of place based education has been around for a long time, but that FSI firmly believes "…that every place is special and that even though the Stone Mountains are an amazing place to teach ecology, folks in urban (area) or (city) can certainly learn something about ecology by going outside as well. Or human culture, or the interaction thereof." For Eduardo, place based education is not limited to a natural setting such as a National Park – though these things can contribute to a place based educative experience. It is also the interaction of human and non-human entities, in both urban and rural settings. Eduardo goes on to discuss the "place triangle" that FSI holds central to their understanding of place based education, as described by other participants at FSI as well. According to Eduardo, FSI:

> … really places place-based education at the forefront of what we think we are doing. And, so, um, our definition of place-based education is education that incorporates the community into the classroom, and the classroom into the community, and leverages local issues, stakeholders, experts, problems to become part of the educational experience. So, using the place, and then we kind of break it up into ecology, economy, society… being kind of three sides of this place triangle … to know place you have to engage in those pieces.

Eduardo's explanation describes some of the connections that FSI is striving for within this plan, and it intimates that the graduate students experiencing the program will have a curriculum that is largely influenced by the "local issues, stakeholders, experts, problems" as part of their experience of the program. Eduardo described how FSI believes that place based education (PBE) increases student "engagement," "learning outcomes," and "knowledge of and connection to their communities with… them being more likely to engage in their community, to potentially stay in their community, to contribute to their community."

Phenological understanding, awareness, and experience is another manifestation of FSI's PBE model. Built into the curriculum for one of the final classes the graduates take is a day each week where students do not have class. Instead, students experience phenology together: "…We say, 'you have two things to do.' We ask them to choose a spot they are going to observe for at least an hour on each of those days for a month…so that they can see spring happening in that spot, and notice phenological changes, and think about engaging students in those places." It is not just that students are getting out and experiencing nature together, but that they are making a direct application to their own future curricula. They are being asked to envision the work that their students, whom they do not yet know, could potentially do with that place in mind. This suggests that, for Eduardo, place is a main jumping-off point for the curricular design process – a source of inspiration and a place from whence the objectives for the lesson are derived. Eduardo continues to say that another facet of this activity is that in groups, as they engage the environment, they also "…try to interpret the environment. So, we are actually *requiring* they are getting out and engage in this place, especially as it comes

back to life in the springtime… being in and observing the environment is really important…" This time built into the curriculum for students to "engage" the material in the field so that they can "interpret the environment" is important to note, as it harkens back to the idea of "local knowledge" (Demarest, 2015) from whence it derives: having experiences that increase familiarity. Eduardo spoke about the place based connection FSI holds central:

> The ecological or place based connection of this program. I mean, I guess that I would say it's really the foundation of the program. Yeah, this program couldn't…couldn't happen inside the walls of a classroom. … Yeah, so I think the ecological focus is a foundation of what we do. It's not an accident that we are in Stone National Park. It's about understanding this place, the ecology that is happening here, and then for certain groups that are interested in it, and certainly for our grad. students, we certainly layer people into that equation and understand how people have effected this place.

> The conversation regarding the facets of what to teach when it comes to place

based education has come up among staff members, especially as they have undergone the revamping of their strategic plan:

> …we are teaching ecology really well – that's the foundation of our program – but if we are going to be a place based educational school, then we also need to teach culture and economics and politics as well, and we don't have that expertise. And so, I think that what we've decided is, no, we are going to stay and ecologically-focused program, with the understanding that place based education is larger than that.

Eduardo includes the model for field based education into his discussion of the PBE framework at FSI. He notes that the FSI's model for teaching ecology is unique because it is a "field based ecology." "I think [FSI's model] is unique in that we focus on teaching in the field…" – the field is the classroom and the classroom is the field. This is not to say that students spend no time indoors – they certainly do – but the field, the

larger surrounding area, is the main classroom for the program. This is manifested in some of the curricular choices Eduardo describes, such as the example of the phenological observations above, but also in the scheduling choices made by faculty, which he describes here:

> It's just crazy to me that a lot of the barriers confronting teachers around getting their students outside, or doing something… even field trips, or whatever, is just that their students are in five different classes in a day, and they've got to sign out of those classes to take their students out. So, just the schedule doesn't…doesn't really allow for a lot of creativity on teachers' parts to do place-based education, to get into the community, to meet people, to see places because they've got a ninety-minute class, or, you know, lesson. There's just not enough time to do that. So, it's interesting how just our decisions about the schedule, you know, either preclude or facilitate certain experiences that…that you can or can't do in the classroom. So, I think that is a detail that we may not think about a lot, but it opens the door for the way that we like to do our courses.

FSI teaches on a block schedule, and this allows for a wide range of experiences, including backpacking trips, in depth discussions, immersive experiences in local schools, and research projects, to name a few. The program values this variety and has made clear choices to structure it in this particular way.

Patterns and process: The curricular dimension. The following three depictions, *Fly away, Big consequences,* and *Community connections* illustrate important aspects of the curricular structure that Eduardo details in our conversation.

Fly away. A unique focus of the program that Eduardo described was the attention paid to mentoring of and feedback for the graduate students. "We have small faculty-to-student ratios…making observations and giving detailed feedback with really this growth mindset of improving is a big part of our program." Eduardo refers to the concept of a growth mindset again when referring to FSI's educational framework: "community leadership…place based education, and then intentional culture that we

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build here…around growth mindset and around everyone contributing." This mentorship, feedback, and growth mindset manifest in many ways, but were especially apparent as Eduardo shared with me the yearly schedule for the graduate program. Each portion of the schedule was tailored to specific classes and the practicum that students would partake in, but the manner in which Eduardo described how faculty engage with the students during these different course timeframes is what represents the idea of mentorship and feedback that is representative of a kind of gradual release model. At the start of the program, it is clear that graduates and faculty are working in close conjunction, but that graduates are receiving information: there is an orientation and series of introductory classes. "They do orientation, then … we have a full week kind of intro. into this place and place based education. Then we go backpacking for a week…". The group is together, and the graduates are experiencing the information being presented to them that is both informative (theory) and experiential (backpacking to further explore the concepts).

As students move into the next series of courses and their first teaching practicum, where they will be working in local schools, Eduardo says that they spend time "training around systems, and planning…And this is where we are holding their hand a little more tightly." The notion of training and holding hands implies that students are beginning to be given a bit of freedom to dip their toes and begin to test the water – albeit, with help right there. "We kind of ramp them up in terms of what we expect from them in terms of autonomy. We try to hold their hand a bit more in the beginning, and then as they get more experience and…information, we…let them fly on their own." As they move deeper into the class progression, they begin to train and plan for visiting school groups –

working with faculty to develop and deliver programming. "With the mentorship of their coach and faculty member, they are planning and delivering these programs. With a lot of hand holding early on…" Again, students are working in close partnership with their faculty mentors, but they have the opportunity to implement some of the design that they come up with.

The work they design, both for the classroom and their research projects, is also mentored by their faculty coach: "…they are revising iterations of their research proposals with me. And so, we are sending this back and forth, and I'm giving them feedback…" The work they complete, both on and off of paper, is slowly building them toward their summer capstone projects and then their graduation at the end of the year and summer where they are ready to fly on their own and take off into their own classrooms.

Big consequences. FSI's graduate model has the foci of community and teambuilding at its heart—the students reside together for the full year on the Fischer Campus, and many of the lessons are centered around working in groups—though there is much learned through the immersive experience of simply living in close quarters with their cohort for a full year. "…[I]t is a mostly residential program, so the students typically live with us here in the Stone National Park and with each other. And, so, I think that has big consequences for our program in that it is a tight knit community; we know each other well." The word choice of "consequences" is interesting to this conversation, because it suggests that there are implications of this choice—both positive and negative, which Eduardo details: "There are certainly great advantages to being this close and this tight, but there are also challenges to working in such a close environment

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and figuring out a lot of the soft skills that come along with collaboration and the cooperation within small groups." Students are given the tools and resources to "figure out" some of these "soft skills," as Eduardo describes them, but not always through the formal curriculum: "So, not only are they living together, and eating together, and cleaning together, but they are also working closely together…" The opportunities present in these "unscripted" interactions are also part of the overarching aims of the experience of the program – creating what Eduardo described as "intentional community."

The block schedule that Eduardo outlined seems to also help this collaboration manifest – it allows groups to be together in the field and in the classroom for hours on end. The curriculum also reflects this concept of team based collaboration with the block schedule in mind. Eduardo describes such a project that takes place in a class that he instructs, where students research a local issue and interview key stakeholders in the issue from various perspectives.

> …the final, kind of, summative assessment is each group has a full day to present their topic, and they've got vans in the valley and wherever they want to go is theirs. So, they design this educational experience for the rest of their cohort, myself, faculty can come…and they have the whole day. And they take us to their problem, and they take us to their stakeholders …we visit whatever places they deem are relevant. … But they make connections with the community, and they learn a lot about natural resource management issues, and how humans are…[laughs] typically it's not a problem with the ecological system, it's a problem with humans…and how human values and decisions really are at the foundation of whatever decision or solution might come about.

Community connections. The above quotation also speaks to another focus that Eduardo described, which is the concept of transference, or how the concepts taught at FSI are used and translated to a student's work in a place that is elsewhere. Eduardo

comments that the FSI "…model of place based education, we think…increases a

knowledge of involvement in their communities." They are currently doing research of

their own in partnership with several schools that visit them throughout the year. The

graduate students work with these schools in order to, alongside their faculty mentors,

formulate curriculum for their experiences and then help to lead and teach the groups as

they visit. The model that he speaks of pertains to both the graduate students in residency

at FSI as well as the groups that visit on their school trips. Eduardo continues, explaining

that:

> …place based education as opposed to kind of standardized curriculum that could
> be the same wherever you teach it. It doesn't engage where the students are
> sitting, or their particular place.

When discussing a question that asked if the FSI school was transported to a

different location (ex. The ocean instead of the mountains), Eduardo noted that:

> I think the only difference would be we'd be looking at different plants and
> animals or different ecological processes or ecosystems. But the program could
> be very, very similar. The content might be a bit different, but the experiences
> would …could certainly be analogous in different atmospheres.

For Eduardo, the experience and the way that the program is designed could transfer to

another locality. This, as he iterates, might change the content – but this could be

interpreted to mean changing the content in terms of "local knowledge" (Demarest, 2015)

and how the graduates interact with that local knowledge. The skills that students learn

are transferrable and could be taken to the next place, as he notes, "More of a theory

around place-based education in such that there are transferrable skills that our grads and

then aspiring teachers can take wherever they go next, whether or not, you know, Vista

National Park is in their backyard." These skills manifest through the experiential and

immersive experiences that students have within the structure of the program, but also the

idea of teaching concepts that are broader—concepts that have wider applicability than simply the specific local knowledge of the FSI area. Eduardo illustrates this idea:

> You know, I think the content we teach to them is important, but the process…and I'm speaking not only about grad students, but even eighth graders that come through our programs… and teaching them about science. We try to teach them about the process-- the processes, the kind of habits of mind, thinking. The practices of doing science, and understanding the nature of science, rather than knowing that a lodge pole pine has cones or (river name) does x, y, or z because then they go home and those would be distant memories. But our thinking that those process-related pieces are going to be more transferrable to doing science back in their home, or observing, you know, natural phenomena in their own backyard. So, we try to focus on things that we think will have a higher likelihood of transferring to the students' home environment.

Eduardo highlights that the process of actually doing field based work is more transferrable to both graduate students and visiting K-12 students than quizzing them on the specifics of the particular place that they are in:

> …in addition to the content-- and those are, you know, sequenced by grades and topics, and whatnot. In addition to those, there are cross-cutting concepts. And those are things like pattern and process. Those are things like, um, structure and function...It's not that we don't teach the content, but that we're just more interested in what the students are leaving with that is going to be more applicable in their own home.

The identification of patterns are geological and scientific processes that are aided by having an understanding of the particulars of place, but Eduardo thinks that there is more to glean from a deep understanding of these broader concepts and how to apply them in any setting.

Eduardo also sees transfer in terms of the curriculum he teaches and the way in which he has infused his own research interests. He has used some of the materials from his work, and incorporated them into the curriculum he teaches. He has noticed, later, that some of his students have used some of these concepts in the work they do:

"…that's been pretty neat to try to…I don't know…try to incorporate some research into teaching and have students go out and then use some of those skills and knowledge to do some of their own research or their own teaching."

The desire to reside in or experience a place because it appeals aesthetically to an individual might also be an aspect of transferability –but one that speaks to individuals for very personal reasons, as Eduardo notes:

> Yeah, I think I think a lot of students come here because they say, "I wanna live in Kolby," or, "I want to live in Stone National Park." It's a storied place, it's just a phenomenal landscape to look at. So, I think that that speaks to a lot of people, is they say they want to be in this environment, I want to learn in this environment.

The desire to be in a place might also be a piece of transferability – not linked to a skill set that a student can take back with them in terms of classroom skills, but equally personal. This idea speaks more to the affective domains– a heart-mind connection.

Digital maps: The place dimension. "My kind of formative experience as an educator was around, I guess, non-formal education in the field – backpacking…adventure camps." A love for science had initially propelled Eduardo toward the notion that he might want to enter into a career in a medical field as an undergraduate. Upon closer inspection, however, he decided that medicine wasn't quite the right fit. He began to take botany classes and "studied human biology with a focus on adolescent development" and worked at a fifth-grade science camp upon graduating. Through other experiential, outdoor education jobs, Eduardo "felt like I could teach science better if I became a scientist – if I actually engaged in doing science," so he returned to graduate school. "I wanted to, basically, get my hands dirty with doing some science." After completing his masters, Eduardo was visiting the Kolby area on a

climbing trip and decided to check out FSI, having heard a bit about the organization.

"So, I visited this place and thought, 'Wow, this is really neat!' And it wasn't the right fit

for me for grad school because I had already been teaching for a while, but I figured this

would be a neat place to just keep on my radar." After completing his PhD, an opening

came up at FSI for which he was encouraged to apply, and was accepted into the graduate

faculty.

Eduardo shared a screen shot of a Google Map that documented the area as

another representation of the place in which he teaches:

> …Maybe [the photo] gets back to that ecological or place based connection. The
> reason that I submitted that photo was that when I think about the courses that I
> teach I can kind of use that photo and say, 'Here's where I like to teach this,
> here's where a great place to do this is in the field. Here's where we do this.
> Here's where we measure this.' And I can kind of chart my classes as little event
> maps on there.

Eduardo envisions his courses not as simply being a list of assignments or a syllabus that

details course requirements – when he envisions his classes, he sees them tied to the

places in which they have occurred on the map; the map tells stories of each class.

Eduardo had labeled his photo with the title: "My Classroom, The Best Place to Teach,"

and had dropped a pin in the center of the Fischer Campus. The classroom, for Eduardo,

is this place in which he also resides – all aspects of the map offer themselves to his

curricular considerations as he plans how to teach. This knowledge of place serves as

inspiration for his own planning:

> …the more you know about what is going on in the natural world, the more
> opportunities you have to make meaningful educational experiences. So, I think
> the [curricular design] inspirations for me is just all the cool stuff that is going on
> out that that we that we have the opportunity to observe because it is right in our
> backyard.

Eduardo in conclusion. It was my last visit to the Fischer Campus, and, after saying goodbye to Eduardo, I found myself noticing a bit more detail as I walked down the stairs and out the front door. I overheard a few staff members having meetings as I walked down the stairs, the copy machine busy -- whirring away in the room below. The building seemed as if it should have a wood stove somewhere, but I didn't see one – the room was warm and cozy, no wind whistling through any cracks in the logs. I emerged once more into the sunshine, and felt grateful for the sun after so many days of snow and cloud cover. I walked towards my car, and as I did I felt a familiarity that I had not felt before – I wondered what a residency here would feel like? I wondered if I could endure the winter and how it would feel to be snowed in here? I wondered what it would be to meet my cohort for the first time and not yet quite understand what we were embarking upon together?

John

That same day, I had planned to meet with John. John had the day off from work, so he had requested we meet at a local bakery. Unfortunately, the bakery was closed for cleaning on that day, unbeknownst to the both of us, so John asked if we could meet at a coffee shop that was also downtown. There was a sign, but it was clear that this was more of a local establishment; I waited outside in the sunshine by the bike racks. The street the restaurant was on was significantly less busy, but it appeared to be used as a kind of cut-through by people that knew there seemed to be less stop signs. John pulled up in his car and hopped out; we said hello and headed inside, settling into a window table.

Complete immersion: The structural dimension. The experience that

participants in the FSI program have is an immersive experience: they live together, they

work together, they eat together, they plan lessons together. This focus on immersion

manifests in considerations when it comes to mentoring, challenges that the faculty and

the graduate students experience, considerations for the community, and finally, the

strength of the program's outcomes. These concepts seem to overlap and often work in

conjunction with one another, as John illustrates in the following vignette:

> … I think that immersion makes it different. And how that makes it different is
> one…from the ecology side of things and the science, but also the teaching side of
> things. So, being in immersion, not only are you learning
> practical/factual/conceptual knowledge about science, you are living in it, and it is
> surrounding you. So not only are you studying birds, like last week, but you are
> surrounded by it. This is not an online course, and you are surrounded with people
> that are studying the same thing at the same time, so there is the constant
> immersion into whatever it is that you are doing and it is hard to …in fact it is
> kinda hard to compartmentalize your life. … It's like we're in the midst of it, we
> talk about it, its practicum based…you can't…can't help but get feedback. You
> can't help but think deeply about it. …you have to actively try to step away from
> it, to be honest. And that makes our program unique, makes it very strong in its
> outcomes. It also makes it very challenging for its participants.

The immersive nature of the program infuses every aspect of the program, and John feels

this along with the graduate students. He states above that, "it is kinda hard to

compartmentalize your life," noting that the separation between what is seen as class

time and free time or dinner time begin to blend together. Conversations continue from

day into the evening, and John states the need to "actively try to step away from it" as a

teacher and mentor.

The immersive characteristics of the program extend to how John described the

manner in which faculty visit and revisit their curricular intentions:

…when I think about what drives what we teach, I think it's a constant reflection of "Is what we are teaching relevant?" And I think we do a good job with faculty, and in fact I think it's almost like we do *too* good of a job in the sense that we are always asking ourselves, 'What do our grads. need to know to be successful?

Faculty return again and again to this question when considering what they are going to teach – they are careful in their considerations and how those choices are implemented.

Teach to place: The curricular dimension. The following two sections depict aspects of the Curricular Dimension that John elaborated upon as we spoke: *Just do it!* and *Shifting paradigms.*

Just do it! John states that, "we are a place based teacher education program," and through the course of our conversation John characterized several ways in which this focus manifests. John sees FSI as a model for both how to "…[dive] in and [learn] about place, and considering how to teach it." The concept of a flipped classroom is not one new to education, but John describes a different kind of place based flipping when he considers place base education's role in the world of education: "…that creative exercise of not taking content and saying, "How do I teach content?" but flipping that on its head and saying, 'We are in place…how do I teach to place? What's revealing itself in this place?'" This discussion extends to how curriculum is perceived and constructed, in that John considers place a starting point for curriculum and content:

> I believe we do that [teaching place] pretty well, by taking by the hand these instructors. You are watching these instructors at the beginning, who are like, 'What do I teach? What am I supposed to teach? What's the content?' Where, by the end they are like, 'Where are we going? What opportunity is there in that place?' And that's a little bit of a paradigm shift… I don't think it's wrong to say, 'What's the content?' And then, 'How do I connect that to place?'

John notes that this kind of thinking is often seen as a "paradigm shift"—meaning, it is not how "traditional" teacher training will often go – the things on the menu at FSI in

terms of options for understanding…one might even call them modes of

representation…are often not seen on the menu of most teacher education programs.

John notes that ecology is FSI's "gateway to place." The focus is to help individuals be

able to teach in a place based manner:

> So, when you come out of this program, are you a trained science teacher? I
> would say yes. Do you have the content knowledge in genetics and all those
> different criteria that you would walk through in a biology class? I would say no.
> But can you…can you teach science at, like… in a place based manner? You
> would have the right approach to engage in that.

Making the "visceral experience in the place real" is another aspect of how John sees

teachers at FSI make teaching place manifest:

> On a fundamental level, I think it comes back to just this idea that we use place to
> teach. That is our primary tool to provide experiential-- to provide meaning and
> context to whatever it is. That's, like, not just talking about glaciers--you are
> going up there to stand on a moraine to talk about glaciers.

> ***Shifting paradigms.*** FSI is making strides to "broaden how we think about place

based education" in order that their students can teach in a wide range of contexts He

notes that FSI's past understanding of place was "more of a natural history, ecological

awareness of place." This has shifted for FSI, as the faculty discusses where their

students will end up teaching. As instructors, they want to be able…

> …to set our student sup and our graduates students to enter the field and say, 'I
> am a place based educator, and I can come into (city, state) and become a teacher,
> and I can be a place based educator there in the midst of, you know, some urban
> or suburban or you know, rural…

John sees FSI trying to expand the concept of place based education and how it is applied

as an institution in order that students can transfer the skills and knowledge that they

receive to the places they will end up working. John sees this transference as

synonymous with relevancy: "…how can our niche be relevant for people outside or

experiencing our national park and for people who come here? How can it be relevant to take it back with them…"?

Transfer also occurs in how curriculum is perceived and constructed. John sees place based education as a bridge and "framework to understand…and teach to place, regardless of your content." In the in-school trainings that FSI does, John acknowledges that science teachers might come in right away and "just be stoked" on the content at hand, but that FSI sees it as just as relevant for "English, or even mathematics." John sees place as a starting point for content, as he witnessed in the above vignette, discussing students who enter and exit the program: "You are watching these instructors at the beginning, who are like, 'What do I teach? What am I supposed to teach? What's the content?' Where, by the end they are like, 'Where are we going? What opportunity is there in that place?' And that's a little bit of a paradigm shift."

Place providing an opportunity as a foundation for curricular content is one way that John sees FSI attending to place, but there is also the notion of "local knowledge" (Demarest, 2015) that comes with understanding a place. When thinking about transference, John notes that if the location of FSI changed, the content "…as far as…educational theory, I think it would all be exactly the same." The content, for John is transferrable to any locality. He notes, however, that while the content may stay the same, "…as far as knowledge of place and what we teach to…that discreet knowledge, that would have to change, because places are different…our knowledge is different, but our approach would be the same." John states that there are aspects that should be discussed more, extending into environmental justice and social justice: "Now, the big question is, are there things here that we don't talk about because we are up in our little

valley and pretty isolated…but do we talk about social inequity within this community that is so close?"

The presence of transfer is also apparent for John in the affective domains, and he considers the "…knowledge, but also an appreciation for knowledge. So, we have that affective domain so that they will then appreciate their place wherever they go." The place itself can inspire those affective domains, those heart/mind connections, but the appreciation for the knowledge at hand can, in turn, also inspire those affective domain connections.

A desire to maintain institutional relevancy is another manifestation of the place based focus that John sees. He outlines two main considerations for FSI as they consider their stance on place based education: the first being the fact that the field of place based education is growing and compelling FSI to evaluate and reevaluate how they define PBE, and the second is a desire to be on the cusp of institutions that are striving to utilize PBE to create lasting change in communities:

> I'd say more and more what defines place based education is how do you be an engaged citizen? Right? So, that's a big driver in where our historical approach has been how do we understand place? We learn the flowers, we learn the plants, we learn the tracks, and we spend time in the natural environment so we have a deep appreciation for it. So, there is a little tension between those. One is very much …or one, without saying it too harshly…one is almost like, what is place without humans, and what is place with humans? And so, how do we combine those two? …so, for us as an institution, we can't just be an environmental education center anymore. We can't just stay up here and say, "Send your kids to us and we will teach them about birds and glaciers." You know, we need… we want to have actually more impact. And that's actually our vision piece, that we actually want to have impact. And so, from a leadership perspective, we need to think bigger than where we are.

The idea of transference extends into the transfer of skills from one point in a graduate students' life to the next point – from phase to phase of what it is to become a teacher. John pushes his students through the work in his classes. Many of his graduate students are beginner teachers that have never stepped foot into a classroom before, never planned a lesson, never thought about the concept of field teaching or classroom management. The progression of the courses at FSI places students into classrooms for their first immersive experiences before they have taken an instructional strategies course. John can understand that his graduate students want to be as prepared as they can be prior to walking into that classroom, but he tells them often that they are "almost ready."

> You know, a lot of those conversations [about instructional strategies or theory, etc.], we save them to the winter after they've all had an experience they can reflect upon. So, that's being true to the experience before content, yet they want to be totally dialed right before they go in, and at some point, you've got to say, "No. You're *almost* ready. You are going to learn from this, and maybe this will be a bit more meaningful for you after we have taught this, because maybe you aren't ready to receive it.

John sees the skills learned through direct experience as transferrable to later conversations about curriculum. John also tells his students that he is envisioning this "future self" that they will someday embody when he is doing his teaching:

> …for me personally when I think about when I teach, I don't teach to them as instructors for that next week. Like, when they go out and teach, I am very explicit that I am teaching to you as future professionals. And so, having a lens on like transference, and like performance outside, like what does this look like in the future? That's my goal. "My vision for you" …I tell them in the beginning that I am training… "I have a vision for you as an instructor and then you know…" And then in the winter, I tell them, "I am teaching to you as a vision for who you can be as a graduate student." Meaning, like, I want you to think hard-- this is your opportunity to think hard about these things. And then I say in the spring, "I have a vision for who you can be as a professional," like, in the field of

education…a leader… like, this isn't about you just going to get a job at the next environmental ed. Like, I want you as, like, ten years from now running that environmental education with that depth of experience, or whatever it is…that's what I'm teaching to.

For John, telling his students that the lesson that he is teaching is aimed at their future selves and the work they will be doing could be seen as a kind of visioning exercise. He already has "seen" them as future graduate students, professionals – he has seen them working in these roles and he is *speaking to* them as if they were already within those roles. This kind of positive reinforcement may serve to help some students trust a bit more in the process of the progression outlined by FSI and immerse themselves more fully in the experience. Their teacher already sees them as professionals, after all, so they can take on this experience – no matter how challenging. They are "*almost* ready."

"What's the opportunity?": The place dimension. John was a biology major during his undergraduate program, but found himself asking the question of "what did I want to do with that" degree? He found himself coaching, which seemed a natural progression into teaching for him. "I was just that classic…school biology teacher that taught everything from DNA to ecology and then there was this personal affinity towards ecological and natural…ecological sciences and natural history" that he felt propelled by. He had always been drawn to the outdoors, noting that his father took him outside often during the course of his childhood. As he continued to teach, he felt the desire to return to school for a master's degree. The idea of FSI came up when researching master's programs, and he decided to apply. He was accepted into the program and described his experience at FSI as being "pretty phenomenal…. all of the sudden, you were surrounded by all these like-minded people. And had a chance to live and breathe…science overlaid by education." After graduating, John went back into teaching, and decided to apply at

FSI's Pathways School. He was hired, and taught high school there for five years. After this tenure, he was asked to move into the graduate program, "So I kinda went back home…to the graduate program that was so formative in my life. I wanted to kinda be a part of that and mentor teachers there."

As another way of representing the place in which he teaches, John offered a photo of a field that runs into a sloping hillside. There are varying shades of green throughout the photo, and more texture in the foreground: scruffy stands of sagebrush stick like stubble from the slightly darker green below. The green underneath the sage looks pristine, almost as if it had been trimmed by a mower from a putting green, and this smooth patina runs into the slopes of the hills in the distance, where there are stands of pine trees that undulate over the graceful hills. There are broad clearings on the hills that seem to beckon or beg one to run up or ski down, and the sky behind is a dark grey with spackled patches of bluebird in the distance. The sun is bright, but not glaring – taken right after a storm, presumably, as there is the faint sign of a rainbow arching wistfully to the left from just beyond the center of the shot; which appears to actually make contact with the ground in the photo.

For John, the photo holds the story of an entire class period in which he got to lead the graduate students through a journey in a landscape that held a story:

> Yeah, so, one trip that we do, and it is kinda like a culminating trip, is to go up to Vista National Park… I lead this trip. And, really, it's an awesome little micro-study. It's us going up into Vista National Park and saying, "What's the opportunity?" …what's possible as far as place, and meaningful connection? The driving question is, like, how does authentic engagement of place lead to the design of meaningful experiences?... so, in other words, like, how do you, as an educator walk in in a real way and experience it for yourself so that you can have a vision to design meaningful experiences? …I'm not having them learn any content …and I guess that I do that, I try to model things, but that's not the big

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goal. The content is just to support their vision for what they could do with students.

John's question, "What's the Opportunity?" drove the learning for the lesson. Even though he had been there before, and even though he knew the story of the wolves and the place where he was leading students, he let the place guide the learning and experience that the students would have. The place, in that moment for John's class, held the past history, the present interaction, and the future understanding in a single interaction. Through the immersive experience with place, the place presented an opportunity for learning. For John, the "…ability to make place come alive in your mind so that you can design [experiences]" is something that has come to him through experiences with that particular place, but John stresses that this, too, is a skill and key understanding of his perception of place. This concept is also tied to course design, in that, "Lots of people can engage place, but how do we use it to engage in design?"

John in conclusion. John said that he could "talk about this [material] forever," but had to leave. We said goodbye as the breeze started to pick up a bit – we had moved outside during the course of our conversation, as a debate team had come into the coffee shop and had made it difficult to talk. The benches we sat on were on the sunny side of the building lined by tall pine trees that threaded their long needles back and forth through the blue sky as we talked. I accompanied John to the sidewalk where he had parked and we said our goodbyes. John inquired as to when I would be departing the area, and I told him that my flight was first thing the next morning. He wished me a safe trip home and got into his car and drove away. I walked back towards my hotel, hands in my pockets, reflecting on the day. My bag felt heavy with all of my notes and equipment, but I felt somehow lighter having had the opportunity to converse about these

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ideas and having felt the desire and willingness reciprocated. I squinted into the sunshine and felt its warmth on my face.

Field Studies Institute in Conclusion

When I woke to my alarm it was still black outside without a sliver of moon. I had packed my bag the evening before, and wrestled the beast down the stairs and into the back of my car while wondering if I had packed enough warm layers into my carry-on. The clouds of my breath were illuminated by the faint parking lot lights, and I could hear the sound of my breathing as I sharply slammed the door. I was the only one in the hotel lot – my neighbors for the past week--some for a night, some that I saw a few days in a row--all tucked softly in bed. There was a sense of peace to the early morning, and as I turned on the car and waited for the heater to kick on, I wondered about what I had seen and felt and experienced…my thoughts too close to me still to fully see the layers and patterns and webs of my conversations like the constellations laid out before my two sharp headlights on the road. I jumped onto the airport shuttle that waited at the rental car office, a pair of couples already in the van. The drive was quick, and I listened to the others in the van as I watched the stars and headlights going by -- they talked of home, of sights seen, of returning again.

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Mapleroot University

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Mapleroot University (MU) is a small branch of a larger conglomerate of private universities that span the United States. Each branch is different in terms of academic offerings as well as regional situation. Mapleroot resides in the Eastern United States in a small town in proximity to mountains, rivers, and lush forests. The University focuses on a handful of majors, one of which is Education. A fully accredited university,

Mapleroot's Department of Education offers a wide range of curricular "tracks" for prospective students, including certificate paths as well as undergraduate and master's degrees. Teacher certification is offered as a track that prospective students can take along with the other options, and this graduate program is a blend of summer residencies, on campus classes, online classes, and internships. The graduate program for those that already have a license also has a summer residency component, as well as online classes and work at their own educational sites.

Over the course of the six days I would spend in the area, I was scheduled for three interviews and two observations with my participants: Scott, Anna, and Zeke. During the course of my flight, I had the opportunity to wonder –I was excited and curious about what this visit would hold for me. As I got into my rental car and began the drive, I found myself leaving the city further and further behind and the rain began to come down in sheets.

The highway soon turned to a four lane, to a two lane that meandered over old bridges made of stone and covered in foliage that clung and crept. I found myself in lush forests that were suddenly interrupted by small lakes or rivers that were lined with stately homes or summer cottages with white screen porches or tied up rowboats. Some of the bodies of water seemed lagoon-like, with no traces of people to be seen. Trees were downed in some of these marshes, and the pointy stumps made me think that beaver teeth may have been the cause – I scanned for their dens before plunging once more into the forest. Soon, it became dark in addition to rainy, and I had to rely on my GPS fully to find my way. The road wound – careening into town squares and then carrying on into the forest before arriving at another turnabout and then onward once more. I pulled into

town at last, and made my way down the main street toward my hotel. Headlights and shadows illuminated the brick structures as I finally parked and turned off the ignition.

Zeke

The first two days in the area were spent with Zeke, the first observing his class and the next for our interview. On the day of our interview, the rain had cleared; the sun bright and blazing. There were puddles in the parking lot as I pulled in, and I found myself noticing the different spots where the activities had taken place the day prior during my observation of Zeke's class.

I walked into the building, stepping over the faded purple drawings done with iris petals in the sidewalk that had been drawn during Zeke's class– what must others think as they pass these drawings, I wondered? There was a stick leaning up against the fencepost that one of the students had used as a drawing tool; these seemingly mundane objects now held stories for me, and I considered how this, too, is an aspect of understanding place that I had not considered before. I was directed toward the education wing of the building, and walked upstairs to where the offices were. I asked if Zeke was in yet, I was early, and was told that he would most likely arrive any minute. I sat in one of the sofas and began to look around. There was a bookcase full of educational texts as well as what looked to be student work, mostly bound in elaborate handmade-looking books. I walked over to examine them further, and saw that many of them detailed maple trees – different aspects of maple trees. Some dove into the scientific nuances and nomenclature of the different parts of the leaf, the trunk, the root systems. Others attended to the color palate of the leaves themselves.

Zeke arrived as I sat back down and opened his office to drop off his things. His office was covered with maps, student work, papers, and books. He asked if we could do the interview outside, and I agreed – it was a beautiful day. He said that he was going to make himself some tea and offered me some, to which I agreed. As he walked past the shelf with the books on it, Zeke mentioned that the books were student made as well in a bookbinding elective offered at Mapleroot. He showed me a few of his favorite examples. Tea in hand, we walked downstairs and toward the picnic area where the student groups had debriefed the day prior. We sat across from one another at one of the two white plastic picnic tables after wiping and scooping any standing water left from the rains.

Compelling curriculum: The structural dimension. During the course of our conversation, Zeke zeroed in on the concept of integration and the integrated day as a manifestation of the program focus at Mapleroot. He stated that this emphasis is due, in part, to the fact that…

> …we've held onto the values of progressive education…we've kind of held to saying, "Hey, we know…what kids are interested in, and we know what makes for compelling curriculum, and we aren't going to completely submit to the dominant paradigm in education."

He emphasized the concept of "integrated curriculum and the integrated day." The arts and environment have been recurring integrative themes for the program, due to the program's structure, the faculty's interests, as well as interests expressed by students:

> …we start with the integrated learning … the premise is that, yes, you have to teach these separate subjects, but what we are aspiring to is integrated curriculum and project based learning.

Origami and bookbinding are examples of electives that students can take along with their "core" education class, aspects of which are infused into the actual education

courses. The connection to nature is inspired, in part, due to the close collaboration between the Education and Environmental departments at Mapleroot, as Zeke details, "…because there is a big environmental studies program here, there has always been a lot of intercommunication between us and the environmental world. And also because of my interests. So, we've also, you know… and I think we are one of the few places that's really integrated place based education or environmental education into at least elementary teacher education."

These ideas were echoed in the class that I was invited to observe the day prior. Graduate students had prepared nature-play activities in small groups for the others to participate in. The groups were supposed to utilize specific nature-play themes they had outlined in class, such as secret paths, but all having to end with the realization that they need to get home because they are late for supper. There were three groups that presented, and the graduate students were supposed to jump in and play as if they were children taking part in the activity. During the first group's activity, groups were told to cook. Zeke participated fully – stirring an imaginary pot of food then sprinting with the rest of the group across the parking lot when told they need to run home. Told to change when "home," Zeke took off his raincoat even though the drizzle is still coming down. After the group's exercise appeared to be completed, Zeke switched from his play mode back into his teacher mode, asking what design principles were utilized by the group. Zeke acknowledged student responses of adventure and fantasy as the key principles used, and cited a study on foraging—noting that the study stated that children that had the opportunity to forage, or to collect from nature, led to a better understanding of biodiversity. This flux between complete immersion in the activity and back to analysis

shows the importance to Zeke of this type of learning. He is so invested in it himself, that

he has no qualms jumping in and taking part.

As another group presented, and this switch is clear yet again. Everyone was told

to gather up and to get low. Zeke crouched down as the group is told they need to get

home but their horses need food first. They have to collect food for the horses, and with

a burst of energy, the groups disperse and run down the hill. Zeke stops at some bird

feeders on the way down the hill and scoops up a handful of seeds to feed his "horse."

The groups are told to go to the "kitchen" to cook the food. The groups run under a

grouping of trees where a small, metal cookpot has been set up on a stone. Students and

Zeke stuff their foraged items into the cooking pot and Zeke begins to collect bark and

build a fire. They are told that they can use their "laser eyes" to light the fire, and Zeke's

eyes immediately widen as if lasers are shooting out of them as he is intently staring at

the pile of sticks. Zeke begins to rub his hands together and hold them out to the fire—

pretending to warm them up. The group is told that their horses are hitched to a nearby

post, and as they run over to them, Zeke yells excitedly, "I want Sampson!" already

having named his steed. The group is told that they have to ride home, but on the way,

they will be passing the boy's fort. Zeke yells, "Maybe they are already home?!" The

group takes off on their horses, and Zeke is galloping and whooping. As the group

crosses the parking lot to the same debriefing site that the first group used, Zeke gets off

the horse and loops the reins over the wooden post, wet and covered with green lichen,

that corral the area. Switching back into "teacher mode," Zeke notes that the complete

investment in the character helps kids enter the landscape of play and creation of little

worlds. Zeke illustrates his point as he laughs and says, "I haven't ridden a horse in a long time! They were fast!"

Just like Zeke's notion of investigating what is immediately local, his conversation about integration seems to fall along the same lines: infusing the artistic, the natural into the curriculum so that it is seamless and authentically experienced.

Backyard dandelions: The curricular dimension. The following depictions, *Easy on the cilantro!* and *"What's going on here?",* emphasize the aspects of the Curricular Dimension described by Zeke during our conversation and my classroom observation.

Easy on the cilantro! Zeke sees the idea of the program focus manifest in terms of the ways in which curriculum is designed, keeping in mind an understanding of "…children's relationships to the environment as the basis for curriculum design." This includes what is conceptually appropriate for a child to learn in terms of their developmental stages, which Zeke outlines in the following example:

> Five and six-year-old is the home and school, so the curriculum -- a lot of the social studies curriculum, writing activities should be focused on those things. And then seven and eight-year-olds, the world gets a little bigger, so the curriculum should focus on the neighborhood. Shouldn't focus on the solar system, right? So, it's that understanding of kids' relationship to the world.

This understanding is what helps a child see their world – what is in their backyard, what is in their home, what is in their neighborhood. Along these lines, Zeke outlines that aspects of a project he once did where students had to utilize the strip mall that is adjacent to the school property to set up observations for their peers. One student decided to observe the local Walgreens sign:

And you had to observe where the sparrows were nesting, because…so inside the "A," there is an opening, right? So, the inside of the opening of the "A" had different parameters than the insides of the "E's," or the bottoms of the "W's," the bottom loops of the "W's," and you could actually figure out the nesting parameter inclinations of sparrows …

The use of the sign at the strip mall seems to be, in Zeke's mind, is a way of directly understanding and applying what is happening in the local community.

Zeke likened such experiences as teaching opportunities, and he reflected back to the experience with his students the day prior in the class that I was invited to observe:

…. So, we did on Monday did a whole thing on the design principles, and then I said, "Ok, now you are going to recollect and write about childhood memories that relate to these different play motifs, and then you are going to construct a little adventure/theater activity that illustrates them," right? And so, in the process of that, lots …I think a lot of interesting content emerges. Interesting content about the place, and then interesting content about what makes for good teaching. … I like the un – the pulling back the layers of the onion, or that seeing the miraculous, or seeing the opportunity within the stuff that you walk by every day.

Content arises about both the place and also "what makes for good teaching" – infusing the pedagogy, the instructional practices. Through such experiential activities, new layers emerge, new thinking, and the chance to "…[see] the miraculous, or seeing the opportunity within the stuff that you walk by every day." The new understanding, the interaction with the activity and the students, but also the opportunity of what is *there* and how one can harness this opportunity into their teaching are all considerations and manifestations of this emphasis for Zeke.

Zeke also thinks that this child-nature relationship asks that attention be paid to the progression of introducing ecological ideas into a child's curriculum at the appropriate times:

…it's the whole ecophobia idea. When you start with the rainforest education stuff in first grade, you are basically not accomplishing your long-term goal of attitudes and behaviors and commitments, basically you do just the opposite. So, I think the whole premise of what we are trying to do here, in terms of elementary teacher education, is the primacy of the natural world experience and the… and the use of the nearby environment.   So, you get that sense of connected-ness and place value, then that's the foundation upon which the…more kind of formal content of environmental or ecological education, you know, becomes more important.

Zeke sees the idea of beginning with place and then thinking about "environment as a subset of place" as a valuable way to begin this process of "salting in" such conversations as students become ready to hear them. He sees issues with leading with the "environmental tragedies or environmental destruction" because "kids get turned off." He likened this process to that of making salsa, stating that "Salsa without cilantro isn't salsa, but you put too much cilantro in salsa and it kinda becomes yucky…you need it in the right proportion."

"What's going on here?" Local investigations are another means by which he sees the program focus manifest. A source of his inspiration when creating curriculum for his classes are the local trees, where students create projects inspired by a tree on or near campus. The wide range of projects that students come up with by asking "'What's going on here?'" Some of the projects end up being very scientific, such as "the six different ways you can preserve colored Maple leaves, and then a comparison between the techniques." Other projects are more artistic, such as one on "tree climb-ability," where the student went to a park with a rubric they had created and scored trees based on different aspects of their climb-ability using the rubric. Zeke relates the importance of such local investigations to the discussion of "primacy of the child-nature relationship," where teachers should make "use of the nearby environment" as a source of inspiration

and classroom. Zeke states that he "…railed against field trips to the (City) Science Museum forever…its four hours on the bus, it costs an incredible amount. They are there for an hour and a half. It has usually nothing to do with any curriculum thing they are doing." Connecting to the immediate and local is more along the lines of what Zeke thinks students should be focusing on. He, instead, thinks that "…they should be doing field trips to the back of the school yard to study the dandelion population" as a way to more authentically engage with place and apply what they are learning in their classes. This backyard knowledge is part of Zeke's perception of place – understanding what is happening just under one's nose, right where one is.

This concept was also present during the class I was invited to observe the day prior, where, during the second half of class, he led students through a guided imagery activity in order to prepare for both the storytelling unit that they would be writing as well as the field trip to a local site that would fuel this writing. Students were asked to lay somewhere in the room while he guided them through the landscape that they would be encountering on the field trip and the animals that live there. After the guided imagery, Zeke asked if any students wanted to talk about some of the animals they observed or encountered. Students shared stories of their experiences, and as they spoke, Zeke asked about the experiences they described – pulling on visual fragments and smells or the types of animals. He asked students to describe their animals deeper. He connected the activity to the upcoming field trip, stating that in the place where they are going, all of these animals live there. Students then went on to research their chosen animals in their groups, but the connection between the experience of visualizing the trip and the place

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prior to visiting or researching the place was illustrative of Zeke's desire to root his curriculum into the local and immediate.

Parking lot trees: The place dimension. Zeke did not take a photo to represent another facet of the place in which he works, but said that if he were to take a photo that tells a story about an aspect of the place in which he works, that he would "…probably do a really boring photo of right here…". He feels that it is these mundane, seemingly universal landscapes that "most schools have" is what educators should use in order to "…figure out how we are going to use the nearby environment to develop interesting curriculum projects." He explained that his class is going to partake in a field trip later that day, and that this is an exception to the rule, noting that, "Most of the stuff we do is all right around here. In the shopping center [a block away] or here." Zeke asks if I remember seeing the journals in the office, and when I say that, yes, I remember, he points out a tree growing in the middle of one of the parking lot berms, stating, "That's the tree that we focus on." He states that some students do trees in their own backyards, as many of Mapleroot's students are from the surrounding area, but that "…somebody always winds up doing that tree… So, I know that tree really well, and I can tell the differences in the seasonal, you know, what's happening that year because I have watched that tree, it's foliage change color so many times." Zeke's perception of place is tied to what is immediately present in the backyard, in the parking lot, in the local and seemingly mundane. These aspects, for Zeke, help to authentically shape what he teaches and how he teaches: "So, it is using all of these individual…these not very interesting plants and spaces to, kind of, shape the curriculum… that outside the door, things you can do regularly are much more useful in terms of naturalizing the curriculum…".

Zeke in conclusion. We walked back into the building to drop off our teacups, and as we walked I asked Zeke if there were any spots that might be good for a run. Zeke listed a few places that he liked, one in town and the other right out of town. He began to describe the local swimming holes of renown in the area. The day was getting warmer, and the idea of swimming sounded nice – I asked for his favorites, and he told me about a project that one of his students had done where they had mapped local swimming holes and created a ranking system. When we arrived at his office, he pulled out a few different resources for me to keep, two of which detailed specific swimming holes in the area. He pointed to one, saying that he had been there recently and there was a bit too much water – many of the swimming holes were parts of larger rivers, and if the rivers were too high, it flushed the swimming hole out and could sweep away anyone trying to swim in them. I noted that there were several on the map that were relatively close to town, and stated that I would go check them out. I thanked Zeke for the tea and conversation, as well as for inviting me into his class the day prior. He shook my hand and smiled warmly, asking me to come back and report out on any swimming holes I'd tried out, indicating that he would want to know the current conditions.

Scott

That afternoon brought clear skies and sun and a bit of humidity. There did not seem to be mosquitoes out as I began my drive back to Mapleroot, and I wondered if they loved the evening dusk hour best. I was to meet and speak with Scott. I pulled into the parking lot at Mapleroot, choosing a different place to park this time, under a different tree—a tall pine. I thought of the different projects that Zeke had shown me, and

wondered if any students had ever examined this tree and documented it in a beautiful, hand-bound book.

I met with Scott in the front lobby. The sun was still out, and everyone seemed relieved; arms and legs emerged from shorts and short sleeves. The air was less humid, even. People were sitting outside at cafes downtown as I drove to campus, and shop doors were propped open to the early morning. There was a mindfulness conference taking place on campus, and as I headed to the lobby, I passed a large lecture room to my left that is full – someone is discussing their presentation at the front of the room.

The lobby was bright and airy feeling, and as I looked up to the second story balcony that overlooks the lobby, a man is finishing his conversation with another man. As they part ways, the first came to the balcony and appeared to be looking for someone. He saw me with my backpack looking at him, and waved in a way that tells me that this must be Scott. He came down the stairs and shook my hand. We walked back outside and it appeared that we might go back into the education side of the building, but he asks instead if I would like to sit outdoors. I say that sounded great, and he led me to the same set of picnic tables where I had sat the day prior.

Direct application: The structural dimension. Scott stated that Mapleroot is "progressive," but quickly laughs, recalling conversations that he has had about that term with colleagues over the time he has been at MU, stating "Ok, but what does that mean?" He said that the progressive values present through clear manifestation of the program's values and mission of the school, and that these are "woven into most classes." This extends to both place based education and social justice, which he sees as closely entwined. The idea of place based education takes the form of an actual class that

students take within the graduate program, "…not like, 'Oh yeah, we do a little project somewhere in there…we have a whole class." Scott sees the program rooted in what he calls the "3 E's," which are economic, environmental, and equity themes. It is the equity piece that Scott sees social justice becoming part of the program construction, even though he notes that "[equity and social justice] aren't the same exact thing" but he sees this "E" as "more of the social justice…arena." Scott sees this concept manifest through the application of the material itself:

> I don't know how many exactly how many students, but probably dozens of students I've supervised in practicums where they are doing just that. They are looking at they're practicums in terms of equity and social justice, and, um, learning about it more and trying to make change in their school.

The program involves "a lot of self-directed work," which Scott sees as another illustration of the progressive values Scott sees at MU, explaining that:

> …[the faculty] sort of seed things with some…one or two readings about equity, but they find more, and they determine what project it is that they are going to do in their school or organization, so. So, those are some ways that [the values] comes out in classes.

The values are also seen on the larger campus, infusing all the different majors and manifesting for Scott in the form of the social justice and sustainability coordinator position . Scott also sees these changes taking place through the vehicles of "talks and protests" held on campus.

"It's just good work!": The curricular dimension. The following depictions, *"This is who we are!"* and *Worthiness* aim to illustrate aspects of the Curricular Dimension that Scott described in our conversation.

"This is who we are!" Scott believes that the mission, values, and curriculum are closely aligned and that the staff at MU do a good job of continuing to work on that. He

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states that the idea of infusing or "…integrating [a] place or problem based focus…here it's like…it's not like mandated, but its expected. It's like, 'This is who we are!'" The expectation is seen as aligned with the core of "who we are" at MU – likening to any other character trait that expressly calls attention to the particulars of what makes a person unique. Scott teaches a class that has an emphasis on curriculum and assessment, in which this alignment manifests as students connect to place:

> I am teaching about curriculum and assessment instruction and with what I think is a progressive bent on that. But also, I am going to have them thinking about well how am I going to use place based education to do that? How do you connect to your community? How do you use the environment as a context for learning?

These questions both connect to the espoused values of the program, and also ask students to think deeply about their emerging practices.

The expectation of incorporating place was not one that Scott had encountered at other places he had taught and worked, "…coming in as a newer faculty member, I wasn't thinking that way…And I didn't do anything of that [incorporating place]." When thinking about his new role at MU and how to plan his classes, Scott had a conversation with the associate dean of the department, who had told him something along the lines of, "'Oh yeah, you've got to put place based education, problem based learning…' She was like, 'No, you put that in.'" This deliberate and encouraged infusion of these values is one of the reasons that Scott thinks that students deliberately seek out their small program, but he is quick to note that the seeking part is key: "…this isn't someone in (Mapleroot town) going, 'Oh, I want to get my certification, I will go to Mapleroot.' You gotta find it, because it is unique!" Scott sees the qualities and characteristics as unique to the school itself, something to be sought, but also unique to the students that will attend; the unique structure and makeup of the program has to align with what a student wants for

their future as an educator: "But you really gotta find us, in a way. And if you have found us, you probably have that same match of like, 'Yeah, I am going to be a teacher in a public school, but I am going to do it *this* way…'" Scott sees the way in which MU teaches aimed toward the emergence of a certain kind of educator – one that sees different ways to teach within the established educational systems with the values of place and ecology in mind. MU is often "sought" and "found" by practicing teachers, says Scott; teachers who would just like to spend more time out of doors with their students but want to know more about connecting that desire to their curriculums:

> … it is just good work! I work with teachers all the time who have not touched a foot in this place. They want to be outside with kids! …That's not hard. But they haven't been trained to. That's what we have… There is a thirst for that right now, you know. So that thirst is there because, of course, teachers want to do that. They don't want to be inside all the time. They see the value — even if they haven't gone through our program.

Scott thinks that there is an existing desire among practicing teachers to take children out of doors, even if it was not a part of their "formal" training – that this value is pervasive to most educators and recognized as simply being good practice.

The word "holistic" is often linked to medicine – a caring for the body that considers the entire system instead of targeting a specific issue. The idea is that many aspects of a system can contribute to the larger issue of one targeted region or problem and in order to treat a specific problem, one has to consider the bigger picture. The word holistic is, as one might guess, often linked to the word "whole," meaning complete, but it is also linked to the concepts of being "genuine" and "straightforward" (etymonline.com, 2017). These concepts speak more of character traits than the viewing of an entire entity. When used in education, the word "holistic" is surely referring to the

understanding of a child as a whole – not just how they have historically performed on

vocabulary tests, say, but also how they enjoy participating and in other subject areas.

How they view themselves as a student, how singing in the choir makes them happy, how

they have a handful of close friends they trust, how they enjoy a certain teacher's class,

how they are scared to give their presentation in front of a class, how they feel when they

are at home. All of these factors and more contribute to the holistic view of a child. Like

a stand of aspen trees upon a hillside, they are all connected and contributing to one

another. Scott uses the word in connection to the program as a way of better

understanding the concept of place based education and all that it entails, as illustrated in

the following excerpt:

> What I find refreshing, um, about place based education… is that it's a more
> holistic view. Like, environmental ed. can mean different things, like a lot of our
> educational words and phrases…But place based has, at its core, not just the
> environment, but the built environment, the cultural…the culture, cultural values,
> and that can …that can morph if you are in an urban area, you know—urban
> environmental ed. or urban place based ed. is different than rural. So, that's what I
> find refreshing about it – it's a little more malleable. …it's more dynamic, I
> guess. It matches… it matches what is out there for us. And who is out there for
> us to work with…

The "match" that Scott speaks about applies not only to those that desire to apply these

ideas to their own practices, established or emerging, but also to the school itself and

"what is out there for us."

Worthiness. The way in which teachers create meaningful opportunities for

students to engage and demonstrate their learning that incorporate MU's values was

another aspect of my conversation with Scott. As a facet of his own research and

curricular choices, Scott states that he is "really concerned with and inspired by bringing

more problem solving and real-world connection to learning." He states that the idea of

problem solving and education is not anything new, in fact, it has "been written about for

decades." This good practice concerns the design aspects of curriculum, and also the

applicability of the concepts therein: "you wanna design curriculum so it's not just …its

meaningful, its …and students are applying their knowledge." Scott goes on to describe

the text that he read called *Schooling by Design* by Wiggins and McTighe (2007), who

also wrote *Understanding by Design* (1998). *"... they talk about, 'Yes, you wanna teach*

students this and that, but you want them to apply it to transfer it to worthy tasks.'" The

ability for students to transfer what they are learning to actionable "worthy tasks" is key

for Scott. He elaborates that students are "… going to do some of the basics of, how do

you design curriculum? How do you guide that? What are the components of that? What

does that mean? It's not just a…it's not just a list of standards, its more than that." There

is a dynamism that Scott seems to imply that is not present in the description of "worthy

tasks" seen in the text that extends into problem solving: "…engaging kids with the

environment, solving real problems: social, economic, environmental problems. That's

where it's at. That's what's inspiring." The idea of worthy tasks from the text need to

extend, too, to these items, in Scott's thinking. Scott gives a few examples of projects that

students have worked on with this focus in mind:

> … they could be focusing on, "Oh, ok. Let's work on the air quality." This
> happened in town before we had all these round-abouts that you've probably
> experienced? …But we had a high school group years ago who, they studied the
> air quality at…at an intersection that had a lot of stopping, that had a lot of
> emissions… …coming out and, I forget where they compared it to… (neighboring
> town) might have had a roundabout early on. … they showed that if you kept the
> cars moving more, they are going to be less emissions, and, you know when you
> have these cars [makes idling car sound] you know…But, you know, older kids
> can get into that type of worthy task… So, that's what inspires me, you know, that
> it's going to lead to something.

Scott is propelled by this notion—inspired and excited to think about it and incorporate it

into his classes:

> You need to just learn some basic skills at times, but I feel we are totally, way too weighted toward that than we are…the worthy tasks you know? And I would like … to see books not stop at, "Here's this sort of broken down…not broken down in a bad way but just basic structures. Here are the important parts of curriculum." Worthy tasks — where does a teacher go with that? So, that's why I am excited to teach this class. It's like, "Here's some examples," and I…you know, I am going to bring up to my students, make it art, I don't care what it is, but let's talk about something that is worthy that is going add to the community that will move us forward, that will engage kids in solving problems. Whether it is—an art based solution. Or we need to figure out this damn flooding problem, or whatever. That is what really inspires me. And I think a lot of books fall short! … I think the standards pull us in that direction. And how those are used for testing, in some places for judging teachers, you know, it really pulls us in that direction where its bland!

Scott sees the idea of worthy tasks as being a means of connecting students to the issues

that they are seeing in the world, such as climate change, in a way that does not instill

fear, but instead empowers. Scott sees that many of the texts and concepts have the idea

of "training" for future use of ideas and concepts instead of helping students to take on

what they can in that moment and put that knowledge and understanding to use in a way

that might not solve the larger issue at hand, but in a way that can contribute to a better

understanding of the problem and perhaps work at solving a small facet:

> I don't even like that idea of preparing, but I will go with it for now, but we are not preparing our kids to handle the challenges that are coming their way. It's a little bit of the "doomsday" thing, but we are seeing things now, like climate change with everything… seeing things change. And there are a lot of people saying, "Nah!" And even if that isn't happening/wasn't happening, we still have very complex problems. And I am not convinced that we are really preparing kids for that. …my contention is, aren't we all in this together now? … I don't want the goal to be, "Ok, we are just getting them ready." I have been in schools long enough, I've often heard, "If you don't do this in 4th grade, you won't be ready for 5th grade." What if they are just people just developing? [Laughs]

Evolving paths: The place dimension. Scott had attended Mapleroot himself, but had not studied education. After earning his master's of science from the environmental studies department, he did not think that he was going to be heading into education as a vocation. Shortly after graduating, however, he was hired to do environmental education by a local organization, but to do it in the local schools. "…it immersed me in the public schools short of being the actual full-time teacher. You know? It immersed me in public schools, and it really triggered my interest in that and how we can make that better. And that's evolved over time; it wasn't an automatic thing." Through his experiences in many different school settings through this program, Scott had the opportunity to see many different kinds of teachers and administrative teams. As time went on, he began to feel a rising concern over many aspects of public education. "…well, it sort of is a crisis [laughs] but not like I was like, 'Oh *God! We've got to do something!'* But like, 'Oh, we really have to do something!' Like, I wanted to make… even though I wasn't quite in the teacher prep. program yet, I wanted to make public education better for kids. And for me, because of my passions -- that was environmental education at the time." Scott saw a link between his passions for the environment and experiential education that coincided with the needs he saw evident in the public schools in which he worked that spurred him to be more involved with the education of teachers. "I think if you have me go back to that time, that was a precipitating factor to being someone that would work in a teacher prep program."

Being out in nature is something that has infused Scott's life from very early on. He jokes in our conversation that he could talk on and on about "[His] days roaming the woods…" but then continues, more seriously, that he actually "…think[s] about that a lot.

I lived in northern (state). While I was there my brothers and I were like, "Aaah! I hate it here, there is nothing to do!" But we did have something to do; we were out in the woods all the time." He notes that much of this time seems to work its way into his curriculum, stating that "…we have students think about that. 'What was your childhood like? Were you out in the woods? Were you afraid of the woods?' We talk a lot about the built environment, too…" he concludes, drawing attention to the distinction.

During the course of our conversation, Scott showed me a photo that represents another aspect of where he teaches. The photo is lush – foliage pervades the majority of the frame, and the foliage in the foreground appears to be some kind of shrub or bush. The light in the photo indicates dawn or dusk, and there is a pale pink that illuminates the edges of the trees in the background and that is echoed in the dew or rain drops that spackle the boughs in the shrub. There is a street that is met by a sidewalk, but both run at angles that are not parallel to the ninety degrees of the framed shot. There is grass on either side of the sidewalk up to the edge of the street.

Scott articulates that he had a different one in mind when he first heard my request. He states that he initially…

> …thought of an evergreen branch, and this [showing photo of evergreen branch on phone] doesn't have my hand or any hand, and I was thinking of my hand brushing up against it. And the reason is, um, this is going to sound like this epiphany moment, and it really wasn't exactly that, but I was hiking in (state), um, I think it was right after I graduated from undergrad…But, it was either on that visit or when I was starting to work up there, but I remember that I was gurgling this idea of, I wanna work…I wanna do something in the environmental field.

The picture that he choose to show me seems to remind Scott of those days when he was deciding what direction to take his career path. "[The yard is] not all perfect and

stuff, and I don't want it to be. So, it's sort of a lush yard, so they [those that see the photo] might take that. ...it [the photo] brings me back to a time that got me started." The memories of how Scott began his career seem to be a source of energy or inspiration for him, and he notes that he "...I really like the green up against the blue sky...I've always loved that contrast."

     Scott in conclusion. After our conversation, I walked with Scott back to the main lobby. He asked where I had been so far outside of MU and where I had eaten. Scott recommended a few restaurants inside town and also in the neighboring town. I made a mental note of these as we walked inside. I had brought a bag of running clothes, having decided to try one of the runs recommended to me. In the lobby, conference still in full swing, Scott pointed out several different aspects of the different schools that converged in this space. We said goodbye, and I went to change into my running gear. Having changed my clothes, I walked back out of the lobby towards the landscape I had not yet seen.

Immersive Experience: My Run in the Mapleroot Area

     After my interview with Scott, I decided to try one of the spots suggested for a run around a local lake. It had cooled off considerably when I pulled into the parking lot for the lake. The loop had been advertised at three miles, but as I stared at the broad-timber stairs heading up the trail into pine, I wondered what kind of trail I was getting onto. I had asked Zeke instinctually if there were animal concerns I needed to be aware of, and I realized upon asking, how very trained I had been to ask that question and also how much gravity that question held for me. Upon hearing a "no" accompanied by a simple shrug and a moving on to other conversation, the back-brain in me – the one in

perpetual motion – had arranged a series of follow up questions, clarifying remarks, disclaimers for my query in the form of comparisons to my home environment (Mountain lions! Rattlesnakes!) And I felt suddenly aware of my urge to justify my fear. I decided to trust – to not Google the potential hazards. Pulling up to the lot, I was struck by the quiet –there were other cars, but I was the only person present as I tied my keys to my shoe and struck out towards the timber steps leading into the thick. The woods were thick– but not in the way the word implies– the delicacy of the leaves, the branches that had fallen, just so, across the bed of leaves from seasons years ago – a sighing, a fainting. Still, they were impenetrable; looking into them, one's vision simply ended. They urged you, however, to keep looking – to venture in. I walked up the stairs and immediately noted the veins of dark roots etched with a lace of green lichen. The lichen was plush and comfortable-looking, my grandmother's green velvet couch-green. I encountered a fisherman– nearly knocking him down on the trail while trying to tiptoe through a puddle of mud. He was in waders and tall rain boots, which looked pretty nice as I tried to not fully immerse my feet in muck. Looking up, I saw the path split– I chose the path of the fisherman, deeming him "expert" and "local" to boot, but I could not confirm this by any stretch. It felt like one of those choose-your-own-adventure books that I had read as a child. The chosen trail ended up to be, essentially, a waterfall. I jumped and tiptoed, my arms like a ballerina who would not have been invited to join the American Ballet Academy. I finally looked back towards the road not taken, now barely a thin line in the distance, and decided to venture into the impenetrable woods back towards the other trail. As I lifted and lowered my foot in reaction to this decision, I immediately stepped on animal waste – a lot of it. Of what variety, I could not say, but I decided that full immersion into water to

clean it off would be my only option. I stomped into the mud, ran over rocks, jumped into creeks – the purpose was to remove what clung to the bottom of my shoe, but I soon forgot my purpose; it was one of the most fun puddle jumping I'd had in a very long time. I came to a fork in the trail, and stopped my meticulous footwork. Look up. The lake was not large, but it recalled every summer camp experience I had ever had. Trees created a fence-line of sorts that bordered the lakeshore, their roots dripping languidly into the water. The path in front of me seemed to veer to the right, curving with the lake, and then disappearing into the forest once more.   There were two guys with a dog on the far-right side of the lake hollering and jumping in, their voices carrying all the way across the water. I turned left and ran on the relatively obstacle free stretch of trail. Pine needles created soft traction, and each tree window created a still frame of the lake as I continued. The shoreline wound, not with inlets or coves, but it had a soft contour that made you want to keep going as the bend turned next to you. There were turtles popping their heads in to the water as I approached—again, an awareness of my volume. Volume of size, but also volume of sound and how it carried – must carry – reverberating into the water with seismic proportions.

Beyond the turtles was a small island. I couldn't help but wonder what it would look like at night with a campfire lit on it – or how I wanted to bring my son and husband there in a canoe to camp. I came to a crossing, complete with carefully placed stones that rested just below the surface. Looking right, the lake and island--the lake seemed quite big from this vantage--and to my left, the forest and stream extending up into the darkness. The stones were grey granite, and though lichen grew on them, they were not slippery as I stepped on them; nonetheless, I decided to walk in the water. The water

pooled into my shoes through the perforations meant for ventilation, slowly soaking the remaining dry that my socks had to offer and curling around my toes.

Shortly after this crossing, the formal clear-cut trail disappeared into the woods. There were several animal "social" trails darting in different directions, and I began to notice the presence of white splotches of paint, about six feet high smearing some of the trees—cross country ski path markings, perhaps? Trails in high alpine tundra, trails I am more accustomed to, are often ruts in the ground. Some of the soils are highly impressionable-- one can affect their growth and composition by one careless step. This country, full of fallen debris from years of treefall and decomposing moss/stick/mushroom, was new to me. Other than those white markings, I had no indication I was going the "right" way. I tried to keep running, but I found it hard to keep looking for the trail while also trying not to trip and fall and subsequently give myself a concussion. Walk. Run. Look. Walk. Look. Run. Look. Stop. Pause. Full stop. Mosquito buzz. Where am I? Lake...gone. Trail…gone. I knew that if I headed to the right that I would end up on some part of the lake. Mosquitoes were starting to arrive – the humidity a bit more present in the still woods without the breeze off the lake to keep them at bay. I followed a short Jeep-style road that I encountered and then an another, off-shooting, animal-made looking trail – so overgrown it was. I wound down, until I came to a yellow gate made of thick welded pipe that dumped me back onto the road I had driven in on. As I ran for about a quarter mile back to the parking lot, I realized how much I enjoyed the freedom from the trail, the surprise I felt when the road suddenly emerged – "Oh, this is the way." I made it back to my car, and took off my shoes and socks, throwing them into the trunk. I gulped water as two hikers and their dog made their way back to their

own cars, looking like they had jumped into the lake. This had been my culminating

plan, but as the mosquitoes become thicker, I wondered if I should hike back up after all.

I decided to head back to my hotel and change, and as I pulled out of the parking lot and

back onto the road, I rolled the windows down and stuck my hand out to feel the

humidity gathering in the air.

Anna

I arrived at Mapleroot the next day to meet with Anna, who I met in her office

back upstairs in the education department wing of the building. Anna suggested that we

sit outside; the weather was, once again, lovely. She directed us to the same white picnic

benches under the shade of the nearby trees. Anna had with her two canvas tote bags

filled with different books and papers, and she indicated that she had brought some things

to show me. I was scheduled to observe her class on the last day of my stay in the area.

 Stable ground: The structural dimension. Mapleroot attracted Anna for many

reasons, but she the main foci of the program have been true "staple part[s] of the

foundation of the program over time." She includes here "progressive traditions" and the

"place based, nature based thread" running throughout the program:

> So, things that were part of my practice, like integrating subject matter and
> incorporating the arts into everything you do, continued over time to have a big
> place here. … So, I think there is a lot of harmony between how I think of...how
> I have worked with kids and families, and what I believe is good for kids and
> teachers, and how the program was set up.

Anna states that this idea of inclusion extended to "integrating subject matter and

incorporating the arts into everything that you do" and has always had a "big place" at

MU. This was seen in the class that Anna invited me to observe on my last day at

Mapleroot, which was geared towards practicing teachers. Its aim was to help these

educators to continue to enhance their efforts to connect parents and community to their classrooms or programs. Students spent the morning in the class at MU and then were going to be traveling to a local farm for an immersive experience where Anna said that she had asked the facilitator to assume that group of students are parents interested in the school and are coming to visit wondering if the program is right for their child. In turn, she asked the students to dive into the role of the parent, and if they have children of their own, to think about them. She added that if students do not have a child, to perhaps think about themselves as child or another child that they know. The facilitator had an orientation process, so the group would do this orientation. Anna asked her students to consider what structure would help them to bring parents on board and ensure that the parent's goals and their own goals align, which speaks to the care and importance that Anna places on the role of integrated curriculum in education. Anna asked her students to take what suits them and their practice, and discard what does not out of the experience.

An aspect of the school that Anna sees as a strength is how it is applicable and accessible to such a wide range of interests and needs. Anna stated that she is "involved in three of the different education programs," teaching and advising in each. There is a master's program for "teachers who are not seeking a license – often because they already have one." Anna also works with teachers who are "nature based, early childhood educators" enrolled in a certificate program, as well as with students in the preservice teacher program. Several courses that Anna teaches are populated by students from any of the above programs as well as students that are "non-matriculated…or think that this fits a professional need." Anna notes that, "it is nice to have such a wide range of interest, in that the school allows that…".

Rooted: The curricular dimension. The following depictions, *"Who are these people?"* and *"To the wind"* serve to describe the Curricular Dimension that Anna discussed during our conversation.

"Who are these people?" "I think all of us are working with the idea that development unfolds over time – both development of a human, and the development of particular ideas about things," is how Anna begins to describe the main qualities and characteristics of the program as she sees them. This rendering seems to apply to both the children the graduates will teach, and also to the students in the programs as they come to understand and develop their skills as educators:

> …we are trying to help our students find ways of working with kids, even when they have to teach very particular academic skills that really take that development into account. So, we're not starting from whatever the current standards are in thinking only, "How can we make sure they know how to do that?" but, "Who are these people? What are they intrigued by and able to do? And what are the next steps and how do we structure things?

The starting point of curricular design, for Anna, seems to be the students and their interests instead of simply looking to the standards and designing from there. One way in which Anna does this in her classes is by asking her students to observe a…

> …particular child over time. And we are asking them to do that not against a checklist of particular skills or abilities that are being assessed, although that may be…they may notice some of those things, but we are asking them to use a bit more of holistic, descriptive approach.

Anna notes that holding this "larger perspective" close is important to the day-to-day teaching of skills within a classroom. The observations were sent back and forth from the student to Anna and together they formulated ideas for how best to support that student and "…what was constructive and supportive of the kid's development, and what was sort of getting in the way of growth and connections to others…"

In a science methods class that Anna teaches, she has students take on the curricular design aspect through the lens of their own exploration of the material at hand. "…they are learning both a way to engage kids in a similar type of study. They are learning about the content from their own firsthand observations. They have to keep a journal of where they have to figure out something that they are trying to track." Engagement with the idea of how to teach, and exploring that perspective through their own experiential immersion with the material itself is a valuable way to learn both the *why* (theory) and the *how* (application) for Anna. The material that students end up designing based on their own interests exemplifies both the creative aspects of curricular design that is embedded in immersive experiences but also places them squarely in the shoes of their future or current students as they experience the material firsthand from their perspective.

In the mathematical methods class that Anna teaches, she recognizes that some of the skills necessary for moving forward in the subject are best taught using "a few really simple materials in a contained space," but that she wants her students to "…be connecting the mathematical ideas that kids build the world, and for them to be helping kids to see the mathematical problems that are in the world." For a portion of the class, her students designed mathematical trails using the backyard at Mapleroot.

The concept of integration extends to other classes that Anna describes. She refers to an art class for educators "…with the idea of not you're gonna be the art teacher in a school, but that every teacher, kind of all the time, can pull the arts into everything that you are doing. It's a way of supporting literacy and expressing all kinds of ideas." Projects in the class focus on both the built and the natural world, but Anna says that,

"…a thing that I have them focus on that is important here is the community connection."

She gives the example of a course that the preservice teachers engage with that focuses

on integration and "…just understanding what it really means to make a school inclusive

of everybody in that community is a big piece of the work, and understanding the forces

that have sometimes operated against that in our schools." Some of the partnerships that

have occurred include inviting alumni of the program back to Mapleroot to speak on

related topics.

The program has also worked with immigrant students from around the world that

are studying in the area. "You know the face of (state) is changing, and (state) has a long

and rich history of immigration that we just wanted to really explicitly address." The

preservice teachers in Anna's class have a place based theater class that they use as a

means of exploring the content area of social studies. The students:

> …create and put on a play, but they do so in a way that helps them learn how they
> would offer such an experience to children. And they play that they create
> addresses interests and concerns of whoever is in the group. It's a Mummer's
> play. So, this year we did that in a combined class with immigrant high school
> students from (country) and our group of Mapleroot students. So, they…Put that
> on together.

The content is stemming from specific social studies standards, yes, but the inspiration

and the starting point is a symbiosis in the immediate community, the place, and the

"interests and concerns" of those for whom the class is intended as well as those who

create it.

"To the wind." During our conversation, Anna did not show me a photo that

offered another representation of the place in which she taught, but she did offer a

discussion of the photo that she would have shown, which is a drawing tied to the most

recent cohort of graduates (Anna later emailed me a photograph of this drawing described

below). She told me that the cohort community bond is quite strong, and that they even

went so far as to deliberate the kind of group tattoo they would all get together,

theoretically, once the program concluded and they had their diplomas in hand. They

sketched several renderings, said Anna, and "they decided it should be a little dandelion

seed blowing off from Mapleroot… And I thought this would be a lovely last class kind

of thing, and this would be the last we hear of it… But indeed, they met up … And I

think about a half a dozen followed through and got this tattoo. So, then we, their

teachers, all wore dandelions as corsages." This rendering of Mapleroot is one of

dispersal: a collective hub that disseminates seeds to be scattered by the wind with a firm

reminder embedded in their minds of where they have come from and what they have

learned. As Anna put it:

> …there's a rootedness *here* that is significant, right? That this place, being here at
> Mapleroot, working closely with a group of others that includes their fellow
> students, and faculty, and staff, and some community folks -- is a kind of
> foundation, and off they go…you know, as themselves, to do what matters to
> them in some new place. But it…it's not of no consequence where the roots come
> from and formed, right?...So, there's a real feeling of a, I don't know, dispersal or
> network that shares some important things in common and is aspiring to some
> things for children, for schools.

Anna highlights several important ideas in the above quotation. She states that it is

important that the rooting that is happening happens *in place* and that this not something

that can be replicated anywhere. The roots that are formed on a tree stay rooted in the

place in which they were formed – they do not travel as we humans have the ability to do.

Anna notes that it is key that the students begin their experiences at MU because they will

take these roots with them – in Anna's eyes, the roots are indeed transportable and can be

"planted" in some new location. She seems to state that the learning from these roots is infused into the teacher and that it will directly inform the work they do elsewhere.

Sparks of curiosity: The place dimension. Anna began with a conversation about her childhood, noting that she grew up in a couple of different places but that in each she has "really vivid memories of the outdoors" that have stayed with her and influenced her:

> I spent a lot of time learning from being outdoors, both just on my own collecting things and wandering, and as I grew older, exploring in the community and visiting museums. So, I, kind of early on, had the idea that you could learn from stuff, and from people, and it was interesting out there…

Anna discusses here both the natural and the built environments that surrounded her – the outdoors and the community both as informants of these experiences of place. This was evident in the field trip portion of the class I was invited to observe. Although I was not able to take part in that part of the day due to my flight, Anna had arranged for her class to go to an educational farm program in order to pretend that they were thinking of enrolling their own child or a child they know in the program. The facilitator was going to take on the lens that these students are parents, and treat them to the same introductory discussion that she gives to prospective parents. Involving her students in this kind of direct experience that is embedded in the community is something that speaks to her understanding of the role that experiencing place can have on influencing experience as an educator grows.

Anna stayed close to home for college, and did not think she was going to be a teacher right away. She majored in aquatic ecology and thought she was "going to do something science-y" as a career. Through a series of jobs across the years, Anna ended

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up teaching in informal education settings and eventually in a start-up school in her

community:

> I think I might not have been attracted to working in a school, except for the particular vision and way of going about things that they were doing. It was very anchored in some of the early …the progressive practices… So, kids were always involved in these kind of grand scale thematic studies that involved meeting people in the community, and mapping the places around us, and tracing things back to their roots.

> **Anna in conclusion**. Anna's discussion of integrated and inclusive work extends

to a conversation of pattern over time, and continuing to honor the good work done in the

past and carry it forward to the present as an additional offering to the future:

> Maybe how I see some of this is that thoughtful educators continue …who are really paying attention to kids…continue to notice some of the same things about what children find compelling about how they think and work. And I love for us to not lose the good thinking of the past, so to try to keep the through-line going.

Anna refers to the current trends of testing or the largely stationary nature of many

classrooms where learning happens when one is seated, indoors:

> …when we break out of that again, this earlier work has just …is hugely helpful to us…to any teacher who is trying to figure out how to move forward from a place that doesn't feel right. Doesn't feel right for kids, doesn't feel empowering at all for the adults in the situation, either.

> As we part ways, Anna tells me a bit about the class that she has invited me to

observe that Saturday, which I would join for the morning portion at Mapleroot. She

says that they will be headed out for the afternoon portion to a nearby farm for a bit of an

immersive experience with the material at hand, and invites me to join if I could do so. I

note that my plane is scheduled to leave that afternoon, so I would, unfortunately, only be

able to join for the morning. Anna shakes my hand and shoulders her book bags full of

the work of her students, past and present, and heads back towards the building.

Mapleroot in Conclusion

As my flight was scheduled to depart mid-morning on the same day I was scheduled to observe Anna's class, and a bit of a drive, I could not participate in the immersive activity at the farm that Anna had planned for her students. As I left, I saw the students packing their things and gathering in the parking lot. Anna sees me walking to my car, smiles, and waves goodbye to me as her students shove backpacks into the trunk of a car and slam it shut.

I decided upon a different route to the airport than the one I had initially come in on, which followed more of the larger highways in the area and less of the two-lane variety that I had embarked on initially. The time difference was significant, but the pace immediately made my mind long for the slow flow of the river that meandered near Mapleroot. As the small towns gave way to larger and larger cities, my mind stayed drawn to the tops of the trees; the trees--ever reaching in this area it seemed. I found myself looking for small trails, for animal paths, for tangled roots, for light streaming through.

Shoreline Outdoor Institute

Located in a small state park on a lake in the Western United States, Shoreline Outdoor Institute (SOI) is a branch of a state university which is a few hours away in a large city. SOI resides close to a small town that has a large tourist draw because of the affordances that the lake provides: sailing, boating, fishing, among other activities. Winter lasts for a vast majority of the year, with the lake icing over and the tourist industry simmering down until the next season. The state is vastly rural in nature, with ranching

and hunting a large piece of the culture and industry, and there is a large forest fire facility within the town.

SOI is operated year-round, and both students from the University, practicing teachers, and K-12 students from around the country utilize their facilities. It sits perched at the end of a dirt road in the state park, surrounded by tall pine. There are several log cabins as well as yurts that serve as both bunks, classrooms, dining halls and offices for those that live and work in this setting.

The graduate program at SOI is rooted in the larger university's College of Natural Resources. Students in the graduate program reside at SOI with their cohort, but there are also numerous opportunities for educators who are already working and practicing in the schools to become involved with SOI in terms of teacher development. There is also a Pre-Service program, where graduate students in the residency program work alongside students from the School of Education for a week-long immersion at the beginning or end of their teacher training. Students can take many pathways to achieve their end goal, whether that be expanding their knowledge of how to incorporate place into their current classroom, or combining their love of science and the outdoors with a route towards becoming an educator.

**Immersive Experience: My Run in the
Shoreline Outdoor Institute Area**

My first morning in the area, not having a scheduled interview, I had asked a barista at a coffee shop I had stopped into for breakfast about the different places where I could potentially go for a run. She had suggested that I go into the park and run along a trail that meandered by the side of the lake, stating that it was her favorite. From the way she spoke, as if deciding which trail was her favorite to tell me about, there did not seem to be a

sparsity of trails to choose from– especially in the summertime. The weather had been hot and dry, so there would not be any issue with mud or other such considerations.

That morning, I paid my entrance fee at the park and got a map from the employee at the pay station. She pointed to the route that I inquired about, showing me the handful of parking lots that I could attempt the run from. There was one parking spot that sat across from a marsh-like area that I decided to begin from, as there seemed to be a pretty little loop that I could complete. The dirt road had turned to pavement and back to dirt once more, and as I parked, a cloud of dust swirled around and settled. I decided on a trail that sat behind some posts embedded in the path, and I wondered if it had been a forest service road at some point, as it was quite wide. I decided to go on the wider trail to begin.

The light through the trees sent shards of sun into the path, electrifying the already radioactive green of the moss that hung on the amber pine branches. Such green – such vibrancy that made one believe that winter never came to this place. The trail was barricaded by poles submerged in dirt – a safeguard against motorized vehicles. There were people – more than I anticipated, but all friendly and smiling as I began to run – my joints aching from the long plane and car rides. I had walked the day before upon my arrival – and I immediately noticed a stiffness from the plane and the drive that only movement could banish. A biker came toward me without a helmet, and it made me wonder about the technical difficulty of the trail. The trail continued on a very gradual incline towards the lake before turning softly to the right. As the large trail turned, there suddenly appeared on my left a trail that went sharply downhill over roots and deeply planted rocks to the side of the lake; I decided to take it. As I did, I felt my eyes and my feet begin to sync as I picked my line over rocks and boulders and roots the same way a

mogul skier looks downhill – one step further than where they actually are. The lake emerged from the base of the trees and I saw the distant shore interrupted by reverberating waves and ski boats. The trail curved along the shoreline, revealing different places to stop and rest: a bench, an old dock, a rocky outcrop. I saw a mountain biker approaching as I glanced quickly from the ground that demanded my full attention. I stopped, breathing hard, and stretched on the side of the trail as he passed, indicating that he was the only one in his party. I continued on my way, looking for a nice place to stretch. I come to a level clearing on the shore that has a bench and two tall pine trees. I stretched, but my attention was grabbed by the activity on the lake – the ski jets, and the parties of people speeding by on boats, blaring their music. A hiker stopped to throw the ball for his dog into the lake; he said hello and told me that this is the best place on the lake. I said goodbye and continued on my way, greeted immediately by a steep hill that pulls me from my thoughts and the lake and back to the next placement of feet. The trail begins to climb and turn away from the lake, and I wonder if I should have taken the opportunity to jump in after all. As I came over a hill, I nearly run right into a woman looking for her water bottle. She describes it to me, and I say that I have not yet seen it, but will leave it at the entrance to the park if I do. The trail continues, running right into the larger trail I had been on before. After looking at which way to go, I decide to once again jump off this more well-used path and get onto another, smaller dirt trail. There is a sign that says this trail leads to the marsh, but I am feeling as if I am being led in another direction. This theory soon proves true, and I find myself veering up a rocky outcrop and towards the top of a hill. I slow to a walk as the hill continues to steepen, my feet fumbling over the smaller rocks that roll under me—the vegetation having changed considerably from the lush forest to this more dry and arid

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desert-looking landscape. A few scrubby bushes dappled the hillside, and they looked as thirsty as the dirt below the scorched and pocketed rocks. A couple was hiking down as I ran/walked up, and they said hello as I heavily breathed the word back to them. The hilltop did not afford the view of the lake I'd hoped for – taller hills blocking the sight – and it immediately dove back into the forest with a series of thick stairs crafted out of what appear to be old, creosote-soaked railroad ties supported here and there by the large boulders that did not seem to have moved in quite some time. As I wound down these stairs, I saw that they headed back up again, this time the stairs moving a bit closer together to create a fairly steep pitch. I ascended these stairs as another jogger descended them with her dog. From here, I saw that the stairs quickly descended once more after this last elevation gain and flowed into the woods again. As I picked up my gait, I saw the marsh through the trees and my car parked beyond. I could tell this was going to be a fun section. As I began to get back into a rhythm, a sudden garter snake darted across my path and slithered just as quickly into the bushes beyond. I have always been afraid of all kinds of snakes; I jumped with a sharp inhale to the opposite side of the trail and looked behind me furtively. The snake was gone, and I felt silly for my fear of something so small and, presumably, non-venomous. My breathing slowed and I ran once more, coming around the last bend and over the wooden bridge that spanned part of the marsh. As I approached the top of the hill, another car parked in the small lot, and an older couple got out of the car and greeted me. I said hello back and stretched a bit before starting the car and driving back the way I'd come.

On my way back to the park entrance, I noticed a small parking lot on the shore of the lake that I had not seen prior – the hill seemed to give way gracefully to the lake in a

kind of rocky put-in and I decided to go swimming. I thought to throw my flip flops into the car prior to leaving my hotel that morning, and I walked to the trunk to change out of my running shoes. The slope was indeed made of rock, and it almost looks volcanic or glacial with the smoothness with which it entered the water. I let down my hair and walked in with my running clothes and flip flops and found that the water was quite warm – not what I'd expected from a mountain lake. I dove in like a dolphin and began to froggy-kick out toward the open water. I did not get too far before attempting to tread water, and found that I could still stand on my tiptoes. I remembered that this lake was not saltwater, and decided to see if I could see underneath. I submerged myself and opened my eyes to the deep, and was greeted by a blurry palate of blues and greens and browns interrupted by my hair swirling around my head. I burst back up to the surface and began to kick swim back to the shore, noticing that the waves were starting to pick up – I saw a few speedboats leaving the docks in the distance by town.

I was dripping wet, and I know that my car seats were going to be wet as well, but I did not care. I felt refreshed and my muscles felt tired and well-moved. A few people drove by as I walked out of the water in my soggy clothes towards the lot, and I imagined that they were laughing at me, or wishing they could, too, jump in. The smell of dust, the smell of sun, the smell of water rolled through me as I drove once more down a road that was becoming a bit more familiar.

Claire

I met with Claire the next day; she had requested we meet at the SOI offices inside the state park. As I drove from town that morning, I noticed another route through a neighborhood that I thought I would try, as it bordered the lake on one side. There was

some new construction taking place, and large cranes were putting a massive post-and-beam structure together while crew members looked on. The neighborhood was a mix of old and new construction, some mid-50's era ranch style homes interspersed with the newer and much larger modern-looking, mountain-style homes that seemed to cover at least two lots, if not three in some cases, all with manicured lawns and professionally tailored landscapes.

I pulled into the park and paused at the gate. Anyone vising SOI was exempt from the park day-use/entrance fee, and the employee at the gate pointed to the dirt road that was directly in front of us, marked by a sign that said Shoreline Outdoor Institute and the University's name as well. I thanked the employee and drove into the park and the entrance to SOI. There was a group of what looked to be middle school-aged students walking toward the park gate, and I wondered if they were heading on a hike.

The parking lot was bordered by a series of log cabins and yurts. The log cabins had seen some weathering – lichen grew on the shingles on the rooftop – and the patina of the wood appeared weathered and darkened by years of sun and snow. The yurts had camel-colored canvas on the walls and roofs, with doors and windows incorporated into the design of the round structure. The path was gravel and crunched as I walked into the circle of buildings and the green space they all looked onto. In front of me stood the main offices, which were in the form of a log cabin as well. Beyond the buildings, the lake, and I could tell that there was a stairway built into the hillside that extended to a beach area and a dock. There were buoys that marked a swimming area for the passing boats, though no one was swimming at the moment – the sun was still making its way to the optimal height for heat.

I walked into the main office and was greeted by a few staff members who told me that Claire was there. They pointed me to a small table area while one went to the back rooms to get her, and I noticed that the offices shared the building with the classroom next door, where I could hear a teacher discussing some concept. Claire came out of the back room and shook my hand, saying that we could head to her office for our meeting. We walked out of the circle of buildings to one on the far edge of the campus, nearest to the lake. As we walked, I noticed that there was a brand-new building. I asked Claire about it, and she said that it was the new bathhouse – indicating that the roof was so large because of the amount of snow that it has to hold every season. She said that there is a large plan in place to revamp and remodel the campus and that she would show me the larger plan when we returned to the main offices. We sat in Claire's office –bright with one window; books lined the shelf under the large whiteboard on one wall which was covered with a variety of writing for various aspects of the different programs. There was a chair under the window, where I was directed to take a seat by Claire.

End in mind: The structural dimension. Claire spent some of our conversation describing and discussing the process the faculty at SOI had just undergone in revamping the programs and their program outcomes. Claire described that the overall structure of the program was changed, moving from "…a year and a half M.S. program to a one-year professional degree." Advising load and schedule was a component of this change. Claire noted that there were overlaps of groups with one group finishing as another group started. They also moved into a portfolio-style assessment, in order that students can highlight the aspects of their coursework that they feel most proud of. She notes that she is "…a big fan of the Understanding by Design (UBD) process, so we really try to think

about, in the end, what is it that we want them to know and do." She states that the recent changes have manifested in a document that details their program outcomes: …we have a big document that's like what are the outcomes? Where do they happen? How do we know? Like, what's our assessment, basically. Its everything from the big picture, like, 'we want them to be integrated thinkers' to 'able to manage a field group.'" This backwards planning, for Claire, helps her to see that they have adequately prepared the graduates for the classroom. It also helps her to structure the flow of the program, and, in turn, her own classes. These new shifts Claire sees as "streamlined," but that the overall content of the program has not changed all that much.

Built into the staff meetings are "climate and culture" meetings, where staff can discuss the topics that interest them with their colleagues. The topics vary – ranging from how they work to the type of work that they do. Claire states that there are so many topics that they could take on, each interesting in and of itself, but that "we diminish the quality of the program if we try to do too much." This understanding that, essentially, to do more within the scope of the program, they do not necessarily have to cover a huge amount, but that that they can keep their targets focused and go deeper into that content.

The art of curriculum: The curricular dimension. The following vignettes, *Woven in* and *Changing trajectory* serve to depict the elements of the Curricular Dimension that Claire described during the course of our time together.

Woven in. For Claire, the process of curriculum design starts with the larger end goal in mind for the students based on these decided outcomes of the program. She notes that in their revision process, that the staff decided to create a signature assessment for each course "that connects to one of the learning outcomes." The graduate students produce a

portfolio at the end of their experience that "…overall should express all of these because it is made up of all the signature assignments from all the classes. So, in theory it should all work together." Claire says "in theory" because this is the first year that this new program organization will be used. They are also going to try a "integrated seminar" this year that has an organizing focus or topic that has the "social and ecological systems working together."

Along with UBD, Claire continues to go back to the "how" and "why" decisions regarding curriculum are made. She notes that her process is different from some of her colleagues, stating that, "…depending on the person, I think different structures drive processes for them…" For Claire, the "why" is at the beginning of this process, and she continues to ask herself and her colleagues, "'Ok, what is it that we really care about?' And then once we establish that, we look at our current practice and say, "Ok, does it support that?"

Claire brought up the metaphor of weaving a few different times in our conversation, and this image of bringing together the past and the future in a way that is open to interpretation and a wide range of understandings was important to her. For example, Claire described a partnership that SOI has with a local Native American tribe and how they worked together on a project that was "…looking at how the use of drones, the UAV technology can be woven together with a student's understanding of themselves as scientists, but as a connecting to traditional ways of knowing." Claire acknowledges that "…science isn't something that is new to the tribe, but the way that students have been presented with science it might not have been connected with them culturally before" and described how this partnership was striving to incorporate a wide range of scientific ways

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of "knowing," all of which was rooted to a desire on her part to "having the humility to site and learn…from the land, and learn from people who have been connected to the land…" Claire noted that having "humility" was important to this understanding, and that students should "have in [their hearts] this knowledge that you do belong, and that your way of knowing is important and has every right to be there."

Claire says that their program truly is experiential due to the way that students "are learning about concepts in class and then applying them and then applying them to teaching immediately following their class time." Students experience what Claire calls a "rotation cycle" where students engage with "the concept, the experimentation of the concept, and reflection on it, developing new ideas based on the experience and the reflection." The reflective piece extends to both students and to staff, noting that reflection is "built in for students" but that faculty and staff also have the chance to consider "the 'why' and the 'how,' and not just the 'what'" of the things they teach.

This embedded reflective time manifests in the form of journaling, discussion in class, and reflecting in pairs for the students. When students are engaged in their teaching practicum, they "get observed and then have reflective conversations with the person who has done the observing." Noting that the staff capacity does not allow for much more than one of these observations each semester per student, they compensate by doing some video reflections so that students can share and "help you calibrate what you are seeing." A favorite check-in question among staff is "Where are you?" Claire states, which she likes because one can talk about both the "concrete… 'here' or, like, 'physically here, and mentally elsewhere" aspects of the question.

The staff has many meetings, both with the SOI staff and with the larger university staff, but when the SOI staff gathers, they reflect on the "what we are doing, why we are doing it." They "…go back to the 'why's' and make sure that all of our 'what's' align with our 'why's.'" Part of these meetings consist of "climate and culture" discussions, where each staff member brings a topic to discuss, which have ranged from mindfulness to quantity versus quality. Claire sees the process of inquiry and design as artistic:

> [Some of the design process] drives people crazy but I like to go back to the beginning, like the "why." So, what is it that we want them to get out of it? Because I don't want to align our whole curriculum based on what we currently do, and find out that some of what we currently do isn't what we want to be doing…I just want to go back and say, [Laughs] 'Ok, what is it that we really care about?' And then once we establish that, we look at our current practice and say, 'Ok, does it support that?' I mean, so, that's kind of like the process of how it would work in my ideal way, but I also have a high tolerance for process, and other people are like, 'When are we going to be done?' [Laughs]…Like, "When does the process end?" I'm like, "Okay…It's a work of art! It will always be in process!"

Changing trajectory. Claire notes that the connection of the cohort members and the amount of time that they spend together is a strength of the program. Students in the graduate program will live on campus for at least nine months, but "some of them will be here the whole year," living in the yurts and the cabins on campus. "…it's a really strong community…" says Claire, "They are definitely immersed in this place, for better and for worse [laughs]." Claire thinks on this statement for a moment and then adds, "I was going to say for better or worse. But I think, for the most part, it is for better. They support each other…" This support extends to the structure of the program itself and the material that the graduate students find themselves engaging in and with. "…I think, if you look at teacher prep. as a whole it's more like, 'Do your learning, do some

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internships, and then go out and do your learning once you get into your own classroom.'" Claire sees the cohort model as something different than this traditional paradigm in teacher education, as graduate students are immersed in their classes and practicum together while also living, eating, relaxing together as well.

Claire says that this connection extends beyond the SOI campus itself, noting that "…one of the impressive things is, a lot of times is that the grad. students will come here, and then they will find ways to stay…[laughs]…because they get connected. So, like, 'Hmmm, how do I transfer?'" Some graduate students end up wanting to change the trajectory of their educational path due to the connection they feel to SOI, the people at SOI, and the greater community surrounding SOI.

Listening to voices: The place dimension. After attending school to study art and working in consulting and nonprofit roles, Claire decided to attend a program similar to SOI for her graduate degree, then moved to state where SOI resides as she finished her master's degree. She started her Ph.D. around the same time that SOI was started, and had the opportunity to be a part of the founding team.

Claire described her perception of her place in a few different ways, but the pervasive theme was the incorporation of a wide variety of perspectives. She spoke of learning from the land, learning from those that have come before and their knowledge of the systems at work, and an openness to myriad perspectives in these regards. In a "landscape that is dominated by ranching and farming," (personal communication, October 19, 2017) this type of conversation keeps the thread of myriad perspectives going. Claire says she "love[s] working with students who are hunters because…they will tell you about a place you are walking through – like, what would be a good habitat

for a deer, or how would you know if this is the place that…you know, all of these things that they just know because they've been there and experienced it." This knowledge Claire attributes to the rural location of many of their homes and the hunting and ranching they partake in as part of that experience of their homes.

Claire notes that sometimes the values and understandings of some of the visiting students do not, at times, align with some of the values and understandings that the graduate students might have, for example, "they might be the ones where their parents are fiercely denying that climate change is happening, but also have deep knowledge of…land and change that they've observed. So, it's like building bridges to what they know and what they see, and helping them make connections to, like, 'Well, yeah, then that's actually what we are talking about here.'"

Claire in conclusion. Claire sees the systems present in a place and her own, along with SOI's, response to those systems as intricately tied to both the "how" and the "why" she teaches. She illustrates this concept in the following excerpt:

> …so, everything we do here kind of comes from this foundation of…I describe what I think we do here is thinking about how to live well in the places where we live. Not sure that [we] always get there with every program, but it's like, thinking about the place where we live, what are the systems that sort of are present in that place? The social systems the ecological systems? What are the issues that are meaningful within that community, and what can we do in terms of, like, understanding them and also acting towards being a positive influence in the systems?

Claire notes that she is "not sure that [they] always get there with every program," but fostering an understanding of what it is to "live well in the places where we live" is a key understanding to both the program foundation as well as her own philosophy of education. This kind of understanding extends to, as Claire describes above, the social and ecological

systems, the issues present and important to the community, and the actions they can take towards being a part of those issues and systems in a positive way.

As I pack to go, I follow Claire out to the main area once more and into the office. She introduces me to a few of the staff members that are convening there for a meeting, and showed me some of the plans for remodeling the site, which looked quite extensive – most buildings would be replaced to replicate the look and feel of the newly constructed bathhouse. After saying thank you, I head back into the sunshine of the park.

Sara

The last interview that I had scheduled is a few days later with Sara. She emailed me to ask if we could meet in the afternoon at SOI. As I pulled up to the gate of the state park, I could see that there was an even larger group of children playing near the SOI parking lot; it looked as if they were getting ready to go hiking. The employee at the gate waved me through without a fee, and I drove to the SOI lot to park. As I was gathering my things from the car, I saw a sudden movement in front of me where a large mulch pile stood among the trees. Slowly, a fox crept to the top of the pile, right in front of my car, and cozied down in a circled ball like a small dog might in front of a fireplace on a winter night. The fox seemed to see me – I felt his eyes lock on me through the car windshield. Though he saw me, he did not seem to fear me – his eyes did not shut, however, and he kept them pointed on me. A loud cacophony of voices suddenly approached my car, and I opened the door instinctively in order to point out the dozing fox. There was a group of younger children that were playing on the outside of the parking lot, and I pointed out the fox to them. One of the children wanted to get closer, shouting to his friends in

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advertisement. I looked for a supervisor, approached him and pointed out the fox, and he immediately called all of his students close to point him out.

I left them with their supervisor in the lot and made my way into the main quad again. A group of older, high school-looking students were gathered-- another visiting school group, I assumed. Upon entering the main office, I was told that Sara had not yet arrived, so I decided to sit outside and wait. When she arrived on campus, we met in the green. She said that she was hungry and asked if I minded accompanying her to the dining hall so that she could grab a cookie. She also had some things she needed to drop off in there, and offered to give me a tour. We walked into the main dining area, which was a large post and beam log structure, and she put some containers back where they belonged. We chatted about common interests and she told me a bit more about the layout of SOI.

She tried to enter the kitchen, on the hunt for a cookie, but the door appeared to be locked. We walked around to the back entrance, which was open, and Sara seemed to know right where the cookies were. She grabbed one with a smile and we went back outside. She suggested that we sit in an area facing the lake, where there was a ring of tree stumps that had been fashioned into chairs and benches.

Permeable walls: The structural dimension. Sara described the structural changes about to become implemented, noting that they "have been a three-semester program" where students spend a year at SOI and then and then a final semester at the University campus. "That's all just changed," she says. She thinks that there will be a bit of a shift from the way that Sara has viewed the program, which was a blend of education and research, and that perhaps this research piece will be more on the periphery now. A

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piece that Sara enjoys, and thinks will continue, is the work with visiting PhD students

that come to SOI to study and help with the programming. The work they do at SOI is

"preparing educators, broadly defined, in experimental and place based techniques," and

this emphasis on the phrase "broadly defined" catches my ear. Sara iterated the phrase

another time in our conversation, and it makes me wonder if how programs define the

term "educator" is another facet of the conversation to consider. Sara mentioned that a

key aspect of what they do is incorporated into the "science communication" aspect of

the programming that "look[s] at social psych., and how people are processing social

messages." She extends this discussion to the local conversations happening in their

town, but also to the policies that are created and how the world is perceived. In fact,

much of how Sara described the structure of the program was followed with a discussion

of how that structure was influenced or impacted or considered alongside what was going

on in the community or in the larger national scene as she spoke. This balance seemed to

stress the importance to Sara of how these issues and decisions were interlinked – that the

walls between each were permeable.

Locally sourced: The curricular dimension. The following depictions,

Listening to situations, and *It's the people*

illustrate the aspects of the Curricular Dimension that Sara described during the course of

our conversation.

Listening to situations. So much of how Sara understands her place has to do

with both the physical land itself and also the social interactions with that land and the

lines where those entities mesh and collide. "So, so much of (state), like, economically,

but also just in terms of the way we understand ourselves as a state has to do with natural

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resources and being out hunting, fishing is just huge." Natural resources have been a source of income for many in the state for generations, and Sara illustrates this with the example of the "Logging communities and people who have made their lives off the natural world." This discussion extends to the beliefs that students carry with them as they come to SOI, and Sara says that "you learn so much from your students" with regard to this idea of the way that different systems are viewed and interact. As a very rural state, many of Sara's students come from generational farming and ranching communities, and Sara's conversations with them have influenced her teaching, noting that, "I increasingly think of place based education like the human side of place based education and what it is to be here, right?" This discussion of place manifests in discussion of change in Sara's classroom. To facilitate these discussions, Sara has worked with her students on projects such as taking photos, as she describes here:

> we did a photography project where students went out and looked at collected old photos and then went and retook the recent photo. But used that as a communication piece, so to talk about change in the community and how they experience change, and think about change.

With the photos side by side, students were able to discuss the physical changes that they see over a span of time.

Another example of these discussions came in the form of a project where students were asked to go out into the community and ask about climate change. "…students on ski lifts talking to ski patrol…it was pretty cool! Like…and a guy went to the hardware store, and he found that that wasn't super helpful, so he just went into a bar and had great conversations there. So, it was interesting the places that people found themselves…" This opening the door to a larger conversation about place and the factors

that influence place are important to Sara's teaching, and something she feels fortunate to have:

> I am really feeling fortunate about our location in rural (state), right? Because, I mean, I think I mentioned some of this before, but conservative state, but with really deep appreciation and experience with the natural world. So, it's a… really, it's a great place to just think about some of these national tensions that are going on and try to think about how to build better conversations, right? And I think that place based education can really do that.

As an example, Sara noted that SOI is also trying to collaborate with a local farm in order to procure locally sourced meat for their kitchens. This local sourcing is good for SOI in terms of economics, but Sara sees the partnership as one that continues these growing relationships, stating, "I think those kinds of relationships can be really helpful in broadening our questions -- the way we think about ourselves."

Sara says that many of these conversations have helped her to broaden her idea about the scope of diversity and what it can encompass, as she illustrates in the following excerpt:

> … I think about diversity in a particular kind of way and I think that there are a lot of diverse ways of thinking about…like all the diverse ways of thinking about this place that are embodied in this landscape. That is the kind of diversity I am interested in working in a type of place like this, right? How we really start to understand the way people are understanding and interacting with this place, and its environmental and ecological impacts, right? And I think as we are moving into these issues like climate change that is baffling for everybody across the spectrum, you know, I think that those open dialogues are increasingly important, right? And I can't tell you how to do it, I'm not quite there, but those are the big questions that I am really interested in, and I think our students are really interested in too.

This past year, Sara saw a new facet of the idea of place based education and what it encompasses. For some students, Sara noted that the idea of place, where they were, triggered what she called "discomforts" or "agitations" in the classroom. Due to the rural

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location, Sara noted that some students expressed that they felt a kind of disconnect post-election, a "'I'm really cut off here'" type of conversation. Sara said that they talked…

> …about that, too, about what happens when you are confronting some of those issues in a community…in rural (state). What is real? What are the conversations that are significant? And how do you engage yourself in them? It's really quite different…It's just a different …it's a different kind of engagement, right?

She saw "Students coming in with particular kinds of agitations, and then particular kinds of discomforts about being in this place. And I think, as a place based education center, it's on us to investigate it, right, or drop into it, or use it as an opportunity."

> SOI is a place where Sara sees the integrated nature of the content at hand as

something that serves to cross-cut many different themes for a variety of benefits:

> I think it is, you know, preparing educators, broadly defined, in experiential and place based techniques. And also, now with knowledge of not just environmental education, but science communication. And that to me, I mean, that is what I teach, so that might seem more inflated than what it actually is. But to me that's important. This is…I guess I just think about our location, the national scene, broad discussions of science, and its role in policy and just in the way that we see the world. And it seems increasingly important to me to really think about what that means in contexts like this, rural (state).

The curriculum is integrated in the manner that Sara describes, but Sara places special emphasis on the role that the place itself and the students themselves play in this larger picture. Claire says that opportunities where students have the chance to express the many sides and informants of who they are and infuse those into projects is important to her:

> …I feel...and I think maybe our students feel, too, that these opportunities where we can express ourselves as a whole system are incredibly valuable. So, I am increasingly, in classes, trying to create projects or environments in which we are not just talking out of one part of ourselves, right? We are not just talking out of ecology or rational thought…in education I am really interested in these places that are more integrative.

Sara sees the layout of the SOI campus, the place where they are, as a key piece of this integrative focus. She notes that, unlike their college partner, there are no buildings labeled "Chemistry" or other such discipline, "There is no, like, place that is 'chemistry…' Chemistry is here, it is happening in all these natural processes, right?" The yurts that students take their classes in also facilitate this feeling for Sara, "And a yurt, right, a circular structure, in a place like this really facilitates this…you know you integrate your…the Sandhill crane flying over your classroom."

It's the people. Sara begins by expressing her affection for the people with whom she works. Her initial response was flooded with emotion, almost creating tears for Sara, as she stated, "I'm going to get emotional maybe…I think we have a really, really strong team." She says that she isn't sure if other places are similar in terms of this bond, but that SOI is "…a really creative, interesting, supportive place to work." The focus of place based or ecological education that is embedded in SOI's makeup is seen, by Sara, as rooted in this staff she works with. SOI is "a very rich, intense place to work," which she sees manifest in many ways, but especially in the faculty discussions of programming and the commitment of the faculty and staff.

The bond that Sara sees with the faculty is illustrated from the philosophical "what are we trying to do" type of questions, to the tactile meetings that they have to actually discuss the programs. "Some of our programming gets pretty…not philosophical, but very focused on why we are doing what we are doing, and what is the focus all about, and does it matter." She sees the local and national conversations shaping this discussion as well:

...lots of things are shifting in the way we are think about our location in (state), and political divides, and cultural divides, and how do we respond to it as an organization? And where are we now? Part of the relationship is about constantly keeping an eye on that, and just talking about it. What next? What are the next projects? On one level, it's that, kind of, almost like ethical questions, you know? Just constant questioning that impacts our programs.

Sara sees these questions as falling along the lines of ethics – paying attention to the larger discussions going on around SOI, and trying to incorporate them into the structure of the programs taking place.

Another aspect of the community bond that Sara stresses is the way in which the faculty and staff commit themselves to their work. "The amount that people bring to the table, I think that that is quite significant." This type of investment in SOI extends to both the physical place where SOI resides, as well as the individuals that are present in that place. She thinks that this amount of commitment "impacts the grads" by "showing up" – being there and being fully there. Being present in a way that is immersive of oneself. "I think when people show up, we kind of set the bar high for students showing up too. I can answer only for my classes and what I do, but that is certainly what I try and do. Show up. Every day."

"Communal wonder": The place dimension. Sara's background in education stems from her family – both of her parents were educators – but she did not always think she was going to be an educator herself. Sara says that her "background came out of an educational philosophy," but that she was inspired by nature as well. Her family held education in high esteem, noting that they thought that "...just the energy of ideas is something that you risk your life for... on, really, both sides of the family." Her family would take her to a national park during their summers off from teaching, and she credits

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this time outdoors with her family as inspiring and "develop[ing] a passion and love for the natural world." After finishing her undergraduate degree, Sara worked as a ranger and for the forest service, supplementing this seasonal work with some work in the schools as an ESL teacher. "Even looking back," Sara notes, "I was in education, but reluctantly [laughs]." After completing her masters, Sara began a project working with a tribal water education program. "It was the first opportunity to really combine natural resources and cultural resources and also education. And it was a way, like, for me to really realize, like, "Oh…education -- its' not the place where you talk about things happening out there. It's not, like, preparation for action. It is the action itself, like education is the thing." After completing her PhD some years later, Sara decided to apply to SOI, thinking it could be a good fit. She describes her affinity for her work, saying that:

> …there aren't' that many faculty positions where you get to look outside your window where you get to see ten-year-olds and twelve-year-olds outside having these experiences. So, this is a really neat opportunity, and I think quite unique. I mean, I know there are a few places like this, but to be able to do the kind of research I still do with water and tribes.. And then, on another level, getting engaged with preparing teachers, right, or people who will go out and teach in a way that I do really see is that action piece, right? The kind of teaching that I think has real impact.

Part of the appeal of working in her place is that Sara is able to cater to many of her interests and weave them together.

Sara showed me a photo that she had taken that was another way of representing the place in which she worked. It was almost abstract -- shadows danced with light and sparkled on the screen, which Sara told me were ice crystals in the air. She said that she was on a break from class with her students, and they had walked down to the lake through the snow from their classroom yurt. The lake freezes solid in the wintertime, so

there is often activity – cross country skiing, etc. that is happening on the ice. She said

that the "light was weird," creating a kind of "rainbow that was white" that the students

went and walked down to the shore. She said that the lake beginning to thaw, and there

was a patch of bare water and through their binoculars, they could see it was snow geese.

She describes the experience:

> And they instantly, they just all flew at the same time, as snow geese do, and it
> just filled up the whole air and it was just one of those magical moments. And this
> was something…it was kind of similar, but I think the things that stand out are the
> photographs I think of that come to mind, are those moments where you really get
> to engage in communal wonder, right, over something about the natural world, or
> it could be social too, that just floors you. And it's a whole group of you that is
> just standing in awe of this event. And I think those are the moments that just
> stand out in a program like this. I mean I remember (staff member) saying that
> education is about creating memories, and I know that these are memories that all
> of us have. All twenty-something of us that were standing out there will have
> that…will remember that for a long time.

The idea of engaging in "communal wonder," with her students, where there is no

agenda, where everyone is able to only stand in awe of what is before them is an

important part of SOI for Sara. She goes on to connect this experience to her teaching,

saying:

> I just think about the classes that I've taught in main campuses that you have been
> to and they're…there's like a way that you can …theory can be really exciting, or
> there is something exciting in a whole classroom, but it's not the same thing as
> standing on a lake shore in awe of snow geese, right? That is something really
> unique and different. And I think that can only happen in a place *like* this, you
> know? Or similar to this. And I think those kinds of moments, I don't know, just
> sort of consistently remind me of the importance of these places and this kind of
> education, right? I think that's unique.

The place of SOI, "a place *like* this," inspires these moments and those that are there are

inspired communally by them. At once, they are in sync with the environment around

them and also, simultaneously, contributing to their own cohort community environment by having this shared experience. Sara notes the importance of "this type of education," weaving the sentiment into the same sentence as the importance of "these places" – places like SOI. They are one in the same here.

The concept of transference also emerged as Sara detailed the aspects of the program focus on place based and ecological education. I asked Sara how she thought the program might change if rooted in another place, and Sara goes back to her description of moments of "communal wonder" and how even though the "landscape shifts, that kind of experience remains." Sara sees the experience had at a place having the ability to transfer, in one's memory, to future places. She extends this thinking to the ideas of building dialogue and asking questions, saying that those skills transfer and that "…those are good questions to ask anywhere." The recognition of the…

> …personal and community agitations… If you know how to recognize those and open those up, that is certainly transferrable, too, right? Thinking about ethics, right? Maybe just some of these basic, core parts of what I consider education to be.

Sara switches gears, saying that while "it doesn't require ponderosas to get to those places…" -- places being those questions, and recognitions, but that, "I think there's really something to be said for providing students with a kind of refuge in life." Sara recollects her own time as a graduate student, and that having the memory of that experience "…holds something really special in my life that I… like some kind of taproot that I can go back to." The place might be gone from the student in terms of physical distance, but the experience of what that place was like, both physically (the tactile body-in-place) and intellectually (the lessons from that place and the lessons learned while in that place) carry forward, as she describes:

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I really hope that this can be that for those students. And also, those ski trips that they had with their friends, and everything else that comes with that --that this becomes a place that they visit in their memories when they need it. I think that there is really something to be said for helping provide those kinds of wellsprings. I mean I hope that that is what it is for people for the rest of their lives. So that they move locations, but they can, in their memory, access this place at any point.

Sara in conclusion. Sara offers me a tour of the rest of the site when we conclude. There is a large group of elementary aged students in the water below us, and their laughter and splashing travels up the walls of the shore to where we sit. The sun is high above, and on days like this -- in settings like this, I am almost certain that I can smell vanilla wafting off of the pine trees in the light wind that has picked up. Speedboats with wakeboarders and water skiers zoom by at far distances, and Sara and I walk towards the row of cabins. My mind is pulled back to my own days at summer camp in a cabin very much like these, and I think about Sara's thoughts regarding the places we have held in our mind as refuges – the ones we continue to carry with us and return to again and again, wherever we might be.

We part ways, and I walk back to my car through the grassy lawn. As I leave, I think about the difference in the way I feel about the area – I am by no means a local, but I feel I can map the area in my mind now. I know how to get to a handful of places without my phone's map, and I find my mind thinking about the variability between a scene from day to day instead of focusing, as I had done upon first arriving, on the trajectory of A to B. I drive towards the town, passing the employee at the gate who opens the door to the kiosk and waves, smiling, as I pass through.

Shoreline Outdoor Institute in Conclusion

My flight was mid-morning, but with a long drive ahead of me, I knew I would have to leave well before first light. As I pulled out of town, it seemed I was the only person awake. There had not been anyone at the front desk of the hotel--there were fresh pots of coffee available in the breakfast room, but no semblance of wakefulness. My headlights seemed to be pinpricks against the darkness, even when I turned the brights on. So dense was the night, that when dawn started to illuminate the hills that I would climb on my drive back to the city, I hardly noticed it. I drove over a bridge as the morning light became a bit brighter, and noticed that there were clouds of steam emanating from the river into the morning air. There were next a series of low clouds that rested like blankets over dimples in the landscape surrounded by cattails and tall grasses. I sipped my coffee as the sun began to peek over the hills in front of me. I could picture the lake and the pathways that I had run upon. I could feel the cool water of the lake as I dove in playfully. I could hear the echoes of the conversations I had been so fortunate as to have had. I could see the tall pines, so stalwart at their roots and so airy and light at their tops bending and swaying with breeze from the lake. Soon, the early bird water-skiers would be donning their wetsuits and heading to their boats to catch the morning glass of the lake on their water skis. Soon, the shops and the restaurants of the town would turn their "open" signs on and begin to preheat their ovens in preparation for their first customers who would want their breakfast. Soon, the birds would stretch and shake their feathers at the edges of their nests before diving into the air and taking to the light as it scattered across the water.

Descriptions in Summary

In Chapter Four, I described my experiences at each site that I was fortunate enough to be invited: Field Studies Institute, Mapleroot University, and Shoreline Outdoor Institute. My descriptions pertain to my time in the area, the key aspects of my interviews with regard to each participants' description of the program using Eisner's structural and curricular dimensions of the ecology of schooling (Eisner, 1992), and my addition of the dimension of place to this ecology. These sites represent three different types of place or ecologically focused teacher education programs across the country. These descriptions are offered in order to give a feeling of "being there" to one who has never visited these places, and also to set the stage for an understanding of analysis of the pervasive themes at each site and between sites that will be detailed in Chapter Five.

CHAPTER V

THEMATICS, EVALUATIONS, AND IMPLICATIONS

Study Synopsis

There exists a disconnect between the world of education and the world outside of

the schoolhouse (Smith, 2002). While it seems strange that such a facet of our lives, the

places that we exist, could be shed like the skin of a snake when we enter into the realm

of the schools in which we learn and teach, there is increasing evidence that much of

curriculum-making comes to be without consideration for community or place (Ross &

Mannion, 2012). Ross and Mannion (2012) state that, "…place of, or context for, any

educational event is important. Yet many approaches to curriculum design and planning

ignore the role of place and material" (p. 304). Wattchow and Brown (2011) also echo

this idea, stating that, "It is possible for educational practice to function as a form of

placelessness and to encourage a sense of detachment from local conditions as much as it

is possible for it to encourage a sense of attachment to a place" (p. xxv). As described in

Chapters One and Two, the importance of considering place alongside education is

directly correlated with environmental concerns, which continue to metastasize (Orr,

1992).

Environmental and place based education efforts are one means by which

educators, communities, and school districts have responded to these environmental

concerns. State level legislation has been enacted with this idea in mind, such as the

Colorado Environmental Literacy Plan (CEEP, 2010), and the conversation has been extended to how educators are prepared to infuse environmental education into their curriculum (Powers, 2004b; Plevyak, L. H., Bendixen-Noe, M. Henderson, J. Roth, R. E. & Wilke, R., 2001). In a survey of preservice educators (Powers, 2004b), "…every interviewee agreed or strongly agreed that 'all preservice teachers should be prepared to infuse environmental education into their classroom teaching" (p. 4). It is true that there is a wide range of curricular foci within the world of teacher education (Darling-Hammond, 2006), but there are a handful of programs that educate teachers (for licensure and for teacher development) with the framework of place and ecology in the forefront of what they say that they do. This study focuses on such programs in order to better understand this type of teacher education, their processes, and potential contributions to the field.

In Chapters One and Two, I described place and ecological education and how they are informed by ecological theory. I note that there are myriad ways to understand teacher education, but that place – the location of a program – should also enter into this conversation. I elected to study the qualities and characteristics of these programs, how such a focus is perceived by faculty members in these programs, and the significance for education of discerning these qualities, characteristics, and perceptions.

In Chapter Four, I utilized Eisner's Ecology of Schooling (1998) in order to "[provide] a structure for perception" (Eisner, 1998, p. 88) of the range of educational settings that I saw, and focused specifically on the Structural and Curricular Dimensions of the ecology. In addition to these dimensions, I proposed an addition: Place, which spoke to the unique qualities of the place and its impact on the participant's work in that

particular place. Chapter Four was written in a descriptive way that spoke to the idea of providing, "…the audience with a vicarious experience that takes on meaning to the individual engaged with reading the work" (Uhrmacher et al., 2017, p. 55). Chapter Five now builds on the work begun in Chapter Four in an attempt to, as Eisner (1985) put it, "…arrive at some conclusions about the character of educational practice and to its improvement" (p. 98), by discussing the major themes that arose and how these themes correlate to the relevant literature, and, finally, I appraise these themes with my research questions in mind.

Access and Approach

My study took place in the spring and summer of 2017, where, after IRB approval, I traveled to three teacher education sites that market themselves as place or ecologically focused. My initial study design was geared towards initial teacher preparation, but as many sites focus on a wider range of teacher training, including teacher development as well teacher certification, I decided to broaden the range of my study (with the amendment and consent of the UNC IRB) to include such a range of sites. After this amendment was accepted, three sites agreed to participate in my study (all site names are pseudonyms): Field Studies Institute (FSI), Mapleroot University (MU), and Shoreline Outdoor Institute (SOI). Between these three sites, ten participants partook in my study, and at each site, I spent five to seven days. I had the opportunity to interview each participant (See Appendix A for interview guide and Appendix B for photograph guide), and two of my participants invited me to observe their class (Anna and Zeke at Mapleroot University) as a supplemental form of data collection.

As mentioned, three research questions guided this study: 1) What are the qualities and characteristics of ecologically focused teacher education programs? 2) How do faculty perceive the ecological focus and its influence on curriculum? 3) What is the significance for teacher preparation of discerning the characteristics and faculty perceptions of the ecological focus? My research questions with corresponding methods for data collection are present in Chapter Three (see Table 1).

I employed Educational Connoisseurship and Criticism (educational criticism) (Eisner, 1998) in order to explore these questions. Elliot Eisner, who created educational criticism, stated that for one to be a connoisseur, they should have, "…the ability to make fine-grained discriminations among complex and subtle qualities…" (1998, p. 63). Eisner offers the example of all that goes into appreciating a wine as an example of connoisseurship, from knowing the land to recognizing those same characteristics when the wine is tasted. Criticism, on the other hand, "…provides connoisseurship with a public face" (1998, p. 85), noting that the "…primary function of the critic is educational…Criticism depends upon awareness of qualities and their antecedent and contextual conditions for its content…" (1998, p. 86).

Eisner (1998) described the concept of connoisseurship as a form of "epistemic seeing" (p. 68) that attends to all of the senses. In Chapter Four, I explore my specific experiences at each site, taking time to consider the way in which participants described the foci of their programs during our interviews and how they see those manifest in the program alongside my own observations of classes, and my immersive experiences in the places themselves. Chapter Four was written in a way that spoke of an "awareness of qualities" as "a primary means of epistemic seeing" (Eisner, 1998, p. 68). Eisner goes on

to state that, "…those qualities can also be regarded as samples of a larger class" (1998, p. 68), and classifies such as "secondary epistemic seeing." These comparisons are made in order to better understand ecological and place centered teacher education and development, in full recognition of the fact that, "…there is no single ideal to which a teacher performance can be assigned. The varieties of excellence are numerous, and they relate to differences in form, and to differences with respect to what is valued" (Eisner, 1998, p. 70). Uhrmacher et al. (2017) discuss this further, stating that, "The critic provides guideposts, such as in a travel guide, for those exploring educational terrain. Thus, not a single definitive criticism stands to tell the 'truth' about a situation, but rather, the criticism should be one of many" (p. 60).

I now will look closer at the themes present in my study through the lens of each research question.

Research Question One

While in my interviews with each participant, I asked them to describe the qualities and characteristics of their program (see Appendix A for Interview Guide), as well as what they thought set their program apart from others that engaged in the training and development of educators. These responses took many different forms, and answers to these questions were also brought up in other questions during the course of the interviews. In this section, I look at the interviews, artifacts, and observations as a whole in order to best synthesize the overarching qualities and characteristics of these ecologically focused teacher preparation programs, which included: *Immersion and Integration, Mentorship and Reflection,* and a *Connection to "Local Knowledge."*

Immersion and Integration

Being *in* an experience within the program was something that all programs shared in common; in other words, the curriculum was characterized by a sense of immersion and integration. Students were engrossed in their school experience. "Far from radical, experiential education is at the very core of this older educational theory [environment-based education] …While environmental education focuses on how to live correctly in the world, experiential education teaches through the senses in the natural world" (Louv, 2005, p. 201). Louv (2005) goes on to describe how the work of Howard Gardner and his theory of multiple intelligences have helped these ideas. Dylan (FSI) described this through reflection on his own teaching "…you don't have to talk about it, or read about it, you go…have a direct experience with observing, you know wolf predation in the valley with elk there." Julie (FSI) notes that many of the opportunities where the cohort has a genuine chance to connect with one another come during immersive experiences, such as a backpacking trip that they do together early in the year. At MU, both Zeke and Anna took their classes on locally based field trips as part of the larger class structure – further immersing them in the concepts of the material at hand. John (FSI) described his perception of the immersive quality in the following excerpt:

> …being in immersion, not only are you learning practical/factual/conceptual knowledge about science, you are living in it, and it is surrounding you. So not only are you studying birds, like last week, but you are surrounded by it. …in fact, it is kinda hard to compartmentalize your life. It is not like you are taking an online course, it is like you are fully there. …and sometimes you can't get away from it. Because, you go to class, and then you are at dinner with somebody and you are still talking about it, you know, and its ongoing…you can't…can't help but get feedback. You can't help but think deeply about it. You can't help but…you have to actively try to step away from it, to be honest. And that makes our program unique, makes it very strong in its outcomes. It also makes it very challenging for its participants.

Claire (SOI) reflected on the progression of learning for her students, noting that they "…experience concepts…in class and then applying them to teaching immediately following their class time."

At MU, the participants described integration in a manner similar to immersion, in that students were taking and applying their knowledge across disciplines – blending "in school" ideas and concepts with the larger community in a seamless way. Zeke described a student who responded to a curriculum challenge by designing a lesson based on a store in a local shopping center, where the student came up with the idea to look at bird nesting patterns based on nests built in the local Walgreens sign. Anna (MU) created a math assignment where students created a math trail – using the local landscape and their mathematical knowledge in order to create an interactive activity for their students that showed the synthesis of math and local landmarks.

The concepts of immersive and experiential educational models that expose students to the local issues, people, politics while, simultaneously, showing them how these concepts and issues connect to their own learning in the classrooms that they attend is what constructs an integrated curriculum. "Place based educators want to advocate for an integrated curriculum that emphasizes project-based learning, teacher collaboration, and extensive use of community resources and volunteers" (Sobel, 2013, p. 28). It is through the connection to the aesthetic, to the "worthy tasks" that Scott (MU) describes, to the parking lot maple trees that Zeke's (MU) student's sketch and study, to the conversations that Sara had in her classes post-election and helping her students with "…particular kinds of discomforts about being in this place." The concepts of the integrated, experiential, and immersive curriculum at each of these sites made me think

of the students, the teachers, the community members who meet for coffee at the local diner, the grocery stores, and the animals migrating all in one plane. They are connected to one another by a bright red thread that intersects across the mountains, into the classrooms, passes through the aisles of the local Wal-Mart, attaches to the field notebooks on early frosty mornings, ties to the horn of the buffalo as he grazes, and threads back into the ribcage of the student and teacher. "When students investigate one aspect of a system, they invariable – given the nature of systems – are challenged to figure out other parts of the system" (Demarest, 2015, p.86). The string is tugged, and students feel the pull – an integrated, experiential, and immersive curriculum suggests that they should also be encouraged to follow the pull.

All three of the sites have a residential component, and all three sites utilize a cohort model. Dylan at FSI aptly described his perception of the cohort aspect of the program stating, "…you get to know the people you live and work with really well, and that community value is a big aspect of the identity of the program…learning to live and work together and take care of this place together." Dylan's statement suggests that through this cohort model that students see value placed upon caring for one another and caring for the place that they are in as well. This concept could be seen in alignment with Noddings' (2005) theory of care. In a study by Moroye (2009), she stated that "…care is an ecological ethic that should be a larger part of approaches to ecological education as well as a part of teacher preparation programs that seek to include ecological perspectives" (p. 220). At FSI, Eduardo noted that they have a "…tight knit community; we know each other well…" and Francis stated that there is an implicit "[focus] on being a community member" through their highly "collaborative" structure.

The significance of the program in the lives as of sutdents, as well as the significance that their fellow cohort members had had in each other's lives is far reaching. At SOI, Claire and Sara both discussed the strong community in both the cohort as well as among staff. Claire noted of the cohort that "they support each other." At FSI, the support extended beyond the actual date of graduation, as Dylan and Julie noted that there is an intentional connection to alumni during the course of the program as well as post-graduation, and that these introductions have been helpful for both program goals as well as keeping students connected to the program long-term.

 Zeke stated that at Mapleroot, "…there has always been a lot of intercommunication between us and the environmental world," noting that the programs have truly "…integrated place based education or environmental education into at least elementary teacher education." Anna says that the "…through lines for me are nature based and place based education…" The concept of integration was another key facet brought up when discussing the program qualities. Anna (MU) said that she felt that Mapleroot's "outdoor, inclusive, integrated work" was unique to what they do. Zeke stated that "we've held onto integrated curriculum and the integrated day…" noting the connection between home and school. "So, the premise is that, yes, you have to teach these separate subjects, but what we are aspiring to is integrated curriculum and project based learning…" Zeke explained. The connectivity between the subjects taught is a central piece of how teachers teach at Mapleroot. Scott (MU) described similar themes when he pointed out the way in which the idea of social justice pervades both the curriculum as well as the campus ideals.

Linda Darling-Hammond (2006) writes about the wide range of teacher education programs in the US, noting that many teachers state that the most important pieces of their training came in the immersive student teaching aspects of their programs. "These views," she states, " have often led to the perception that if there is anything to be learned about teaching, it can be learned on the job, through trial and error if not with supervision" (p. 6). Immersive experiences, where teachers are given the chance to dive in and put the theoretical information they have learned in their foundational courses to use, is where the application piece of learning is going to have the greatest chance of happening. Darling-Hammond states that while much discussion has happened about the structure (length and level of the program) and categories of certification within those structures, that, "…there has been much less discussion about what goes on *within* the black box of the program" (2006, p. 11, emphasis original). What is in the interior of the black box of these programs that I studied, and why is such an understanding important for teacher education? A piece of this comes through the idea of equity in education (Darling-Hammond, 2006) and eco-justice education (Martusewicz et al., 2011). Not all students are going to be able to experience places like the ones described in this study – indeed, I felt very aware during my study that I was able to travel to these places. Environmental education can seem abstract when living in a place where there are little to no natural spaces – how do these programs then serve to prepare educators for all types of settings? I argue that these programs also have what Bowers (2002) called an Eco-Justice Pedagogy at their roots. Bowers states that an Eco-Justice Pedagogy is, "…centered on understanding relationships within the larger households we call community and the natural environment…[involving] the recognition that reflection needs to be centered on

how the cultural and environmental patterns connect" (p. 33). An immersive experience

in settings, such as the ones that these sites provide, alongside curriculum that afford

students the opportunities to be a *part* of what is happening in the field, in the classes, in

the content discussions, in the local community – all of these experiences serve to show

students what it takes to become part of the bigger picture, to step into community and to

be responsive *to* it, as well as *because* of it and the experiences had in that community.

Martusewicz et al.'s (2011) description of the cultural and environmental commons is

notable to this discussion, as they represent:

> …the non-monetized relationships, practices and traditions that people across the world use to survive and take care of one another on a day-to-day basis. This includes both the 'environmental commons,' such as air, water, seeds, and forests, and the 'cultural commons,' which includes practices, skills and knowledges used to support mutual well-being. (p. 247)

While these students are clearly trained in settings that are unique, even remarkable, in

terms of their aesthetic qualities, each site seemed to demonstrate through their content,

faculty, and core philosophies of immersion and integration what Eduardo (FSI) noted:

all places are special, and that this type of attention to environment and place serves to

inspire students to not only feel a deep rooting to that particular place, but also gives

them a knowledge of *how* to connect to and inspire those roots in other places they may

go.

Mentorship and Reflection

The concepts of mentorship and reflection arose at each site – though they were

implemented in different ways. It is a common practice in school districts to have a

period of mentoring for teachers who are new to the district in order to give them the

support they need as they adjust to teaching in that location. In Linda Darling-

Hammond's (2006) study of successful teacher education programs, teachers were

trained by a kind of "graduated responsibility," (p. 156) where students were allowed

"…to gradually assume greater responsibility for independent teaching over time" (p.

159). Darling-Hammond (2006) calls this "learning to look in classrooms" (p. 157). In a

program that puts place and ecology at the forefront of what they do, this adds an

interesting aspect to the concept of mentorship. Smith and Williams (1999) state that,

"…there is no way to disentangle human beings from the earth, and as long as our species

exists, no way to separate the earth from humans" (p. 3). This declaration could be seen

as the link that is unique to place or ecological teacher education with regard to

mentorship – the mentors are the teachers, but the mentors also are the experiences and

the land itself as well:

> For us, ecological education connotes an emphasis on the inescapable
> embeddedness of human beings in natural systems. Rather than seeing nature as
> other – a set of phenomena capable of being manipulated like parts of a machine –
> the practice of ecological education requires viewing human being s as one part of
> the natural world and human cultures as an outgrowth of interactions between our
> species and particular places. (Smith & Williams, 1999, p. 3)

This type of mentorship, then, extends directly into the hands of the students; they are no

longer idly observing, but are an active piece of what is happening around them. "When

local people, places, and things become sources of new learning in a more fluid pursuit of

their own questions, it hints to the learner that he too can be a source of new learning"

(Demarest, 2015, p 122).

This section on mentorship and reflection is divided into two parts: *Growth,*

relationships and reflection; and *Modeling and exemplars.*

Growth, relationships and reflection. At FSI, the cohort size is small so graduate students are able to spend a lot of time getting to know one another and their mentors. "Students work very closely in small teams with faculty – "coaches" is the term we use." The partnership between student and faculty members also exists at MU, where gradate students work with their cooperating teacher to set up goals for themselves. Goals are also set by graduate students at FSI, which Dylan stated that this, "…allows us to …really think about that growth mindset and the deliberate practice necessary to develop as an educator…we recognize where those strengths are, where those areas of growth are, and can coach specifically to that."

Dylan states that this is a "relationship-driven" process for them, and Eduardo states that because of the immersive cornerstone of the program (the cohort lives, works, cleans, eats, together), that a tight bond is established that allows for authentic conversations between teacher and student.

Reflection was another key component of this idea, and Julie (FSI) stated that graduate students and staff alike are given time to connect to place, as well as opportunities to slow down. Claire (SOI) stated that reflection is built in for program participants, and that when graduate students are observed, they follow up with "reflective conversations." Claire states that the question, "where are you?" is a favorite among staff members at SOI, which she states ties both to the mental and the physical ideas of this concept. Claire acknowledges that staff might divulge that they are mentally absent but physically present, or the reverse. This plays with an interesting piece of what makes this type of teacher education impactful – the presence of place as a subset of self. Somerville and Green (2015) discuss how, "Place itself is theorized in different ways

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according to the perspective of each person…” and asks “…what can place enable in our thinking and empirical research?” (p. 9).

John (FSI) adds that the immersive aspect of the program adds to the level of feedback given, noting that, “You can’t help but think deeply about it.” At SOI, participants stated that deep reflection on the parts of both staff and students was a key quality of the program, and Claire sees this as directly connected to the experiential aspects of the program design in that, “…our graduate students are experiencing concepts…and then applying them to teaching immediately following their class time…we think deeply about our practice and the way that we practice.” Sara also stated that reflection is key to their program, bringing up a recent planning session she remembered, “Some of our, like, discussions about programming gets pretty…not philosophical, but very focused on why we are doing what we are doing…on one level, it’s…almost like ethical questions…Just constant questioning that impacts our programs.” What Sara and Clare and John describe here could be seen as a deeply rooted care for each other and for the work that they do. This care could be likened to the ideas that Noddings (2005) described, and deeply tied to the ideas of place and ecological education because they can be seen as tied to continuity: “Dewey (1963) argued that continuity is the longitudinal criterion of educational experience” (Noddings, 2005, p. 70, citation in original). This idea of continuity and care seemed to be embedded priorities of these programs—how the reflections they took part in effected the practices of those involved, and also the larger structures of the programs themselves.

All of this reflection and mentorship serves to help students with their own autonomy as educators. Eduardo (FSI) states that, “…we kind of ramp them up in terms

of what we expect from them in terms of autonomy…as they get more experience and …information, we…let them fly on their own." Scott (MU) noted that much of the program is self-directed, and that students find examples that interest them and seek out more, especially in terms of equity and social justice: "…we sort of seed things with …one or two readings about equity, but they find more." Scott notes that many students are, "…looking at their practicums in terms of equity and social justice and…trying to make change in their school." This aligns with what Dylan (FSI) discussed in terms of the excitement he feels when students reach the point of "self-actualization" and are ready to "fly the nest."

Modeling and exemplars. Another key aspect of mentorship was the idea of modeling and providing examples to students. Francis (FSI) discussed the relationships the school has with local K-12 teachers who, "…really get what we are doing as far as teacher education." Often, students can present their lessons to these K-12 teachers as well and the teachers will give feedback on the lesson as a whole.

Zeke (MU) says that, "…we model doing stuff with the graduate students at the right developmental level for the kinds of things that we encourage…" and that during the course of the graduate students' two internships, "… we try to place them in intern classrooms with teachers that are going to do this stuff…we screen teachers for that capacity to do those kinds of things."

Anna (MU) described how she hopes her students establish a connection to concepts in their courses and how they directly apply to the bigger picture, which she teaches through activities such as the math trails she and students design. She states that teachers should focus on "…knowing your students first before jumping into that teacher

role." Scott reiterated this sentiment, stating, "…what if they are just people just developing?" The developmentally appropriate nature of planning and design was also discussed by Zeke (MU).

At SOI, graduate students partake in an integrated seminar that tries "… to make connections to all the courses students are doing, and trying to think about, 'How would you address this issue through the social and ecological lenses, through the tools you are getting in these classes?" states Claire.

Connection to "Local Knowledge"

Having a deep understanding of the particulars of place (where birds nest, what roads did not get plowed in winter, where the wolves hunted) was a clear piece of how teaching occurred at each site. This "local knowledge" (Demarest, 2015, p. 9) is tied to questioning, according to Demarest: "Raising authentic questions is not just geographically local, it is local emotionally" (2015, p. 9). At FSI, participants spoke of the specific rock and tree and animal names, their personal understanding of fire patterns in the area, local history, and geological history. Francis (FSI) noted that it is "…easy to teach geology here because it's *there,*" meaning that he can identify the different geologic formations in the area and connect his students to them. Dylan (FSI) stated that, "…stories of place or environmental issues that inform how we teach," meaning that local knowledge almost acts as background knowledge; having it makes certain teachable moments possible. Eduardo (FSI) showed me a Google Maps photo that mapped what aspects of his classes happen where in the area, stating that "…the more you know about what is going on in the natural world, the more opportunities you have to make meaningful educational experiences." Eduardo saw having local knowledge as a powerful

tool to utilizing place in a manner similar to understanding a language fully. If an

emerging Spanish speaker partakes in a conversation in Spanish with a fluent speaker, the

emerging speaker may understand the content – but what about the subtleties? Were

there jokes? How is sarcasm delivered? The same could be seen applied to what Eduardo

was speaking about – he might have passed a certain area hundreds of times and not

known that there were, say, a specific species of bird that only nested in that area during

certain months. Would that not add to the understanding of the larger picture of that

particular place?

Participants at all sites provided me with examples from their teaching that spoke

to incorporating local knowledge into their teaching. At FSI, Eduardo and Dylan both

described a project where students choose a local issue and researched that issue using

local sources for interviews. After their research, graduate students would then take their

class to the issue – planning an experience where they would explain the different

stakeholders and viewpoints of the situation at hand. At Mapleroot, Zeke and Anna both

described their affinity for incorporating mapmaking into their classes. Zeke (MU)

described how he prefers local investigations over field trips, which was echoed by both

Anna and Scott as they described local partnerships that their classes had with the

community. At SOI, Sara's class was asked to conduct interviews with locals regarding

their views on climate change, some of which happened on the local ski lifts, she noted.

Julie (FSI) discussed how during teacher development opportunities, her team would

begin by researching the local, and only then coming to an understanding of how best to

help teachers in that area based on this research. All of the local knowledge served to not

only root students in these programs further into the place in which they were in, but also

to model how to open that conversation of a specific place to a much larger audience and to different places in the future. As Demarest put it, "…*what does this story mean to you?*" (2015, p. 9, emphasis original).

For John (FSI), this local knowledge is also the understanding of the immediate: "…we learn the flowers, we learn the plants, we learn the tracks, and we spend time in the natural environment so we have a deep appreciation for it." This familiarity is echoed by Zeke (MU) as he described a certain maple tree in the parking lot that many of his students have chosen to make the focal point of their projects. At each site, all participants used their local knowledge in order to help me find a running spot, a restaurant, the best swimming holes, and it shows that they each recognize that their places are special through pointing out their favorite aspects.

Dylan also spoke of phenology during the course of our conversation, noting that the staff at FSI have a moment of reflection during staff meetings to discuss natural changes that they are seeing and how those compare to historical patterns in the area. This speaks to an understanding of local systems, which was reiterated by Claire (SOI), who sees "…living well in places where we live…" to include understanding local systems and issues and "…acting towards being a positive influence in the systems."

Most participants discussed their own connections to the area, or to nature in general, and how this inspired an aspect of their work, and I would argue that this also inspires care for what they do and where they are. Dylan (FSI) stated that his "…affinity just continued to grow in this place. And it's still there; it's always one of those places that I can go to recharge and…take some energy back out of my time in the mountains here." He found the area on a trip, and "…this range really just stuck with me, and I

knew that I wanted to come back." Francis stated something similar when he noted that, "…you look at the Stone Mountains – I never get tired of looking at them…That's where my soul is: living in the mountains and doing things in the mountains." Scott (MU) reminisced about a walk he took years ago in the area. He was clinging onto tree branches and realizing that, "I wanted to get into the environmental field." Claire at SOI also noted that nature is where much of her "personal and spiritual growth" occurred.

Concluding Thoughts

A collective understanding of these themes is important to recognize here and in the context of what place means to the larger picture of education. Quantifiable outcomes are often purported as paramount towards the goals of education, and, "…such an assumption is misleading because it distracts attention from the larger cultural contexts of living, of which formal education is just a part" (Gruenewald, 2003, p. 620). Ecological education recognizes the threads that connect between all entities, as "…place and pedagogy are ontologically linked dimensions of a process within which teachers and learners work and are themselves reworked" (Mannion, Fenwick, & Lynch, 2013, p. 794). Our processing of what it is to exist in place (immersion, reflection, local knowledge) helps us to better understand how to show this connection to others (mentorship). The place itself is the connecting piece, but "…the places of the curriculum are not a derivative of experience to be reflected upon, but are open regions within which entities that learn come into experience" (Mannion et al., 2013, p. 804).

Research Question Two

One of the interview questions (see Appendix A for Interview Guide) asked participants how they perceived the ecological or place based focus of their program, if at

all. All participants described both a perception of the focus, and also described how the

focus is central to the work they do. Through the course of the interview, the artifacts

provided to me, and the observations I was invited to partake in, these perceptions shed

light on several key themes, including: *Place Responsiveness, Transfer,* and *Affective*

Domains, which I will detail in the following sections in tandem with their corresponding

ties to the literature.

Place Responsiveness

Participants at both SOI and FSI both described the presence of educational

outcomes that had been arrived upon by the site, and at Mapleroot, Anna described how

the programs, specifically those that are tied to licensure, are designed with those state

requirements in mind. While the sites themselves might have pre-stated educational

objectives that all students are expected to meet, there are still those moments of wonder

that are integral to all of these sites – moments that cannot be planned or accounted for,

such as snow geese, wolf tracks, and Sandhill crane fly-overs -- not to mention the

responses of the students to the concepts at hand. Eisner (1985) stated that, "…the

dynamic and complex process of instruction yields outcomes far too numerous to be

specified in behavioral and content terms in advance" (p. 32). While, as Eisner

illustrates, "…if you set about to teach a student algebra, there is no reason to assume he

will construct sonnets instead" (1985, p. 32), one must take into account these place-

specific things that are present and which cannot be replicated, and that the teacher who

chooses to teach in such a setting will, most likely, respond to. Classroom teachers are

trained to respond to situations that happen in the moment. This responsiveness is part of

what teachers do:

The changes in pace, tempo, and goals that experienced teachers employ when necessary and appropriate for maintaining classroom organization are dynamic rather than mechanistic in character…in the very process of teaching and discussing, unexpected opportunities emerge for making a valuable point, for demonstrating and interesting idea, and for teaching a significant concept" (Eisner, 1985, p. 32).

As Duckworth (2006) described, such curriculum can be "…characterized by saying that the unexpected is valued" (p. 7). Such a curriculum "…must also enable the teacher to feel free to move in her own directions when she has other ideas" (Duckworth, 2006, p. 8). At FSI, Francis described this process as "…just being able to use what this place throws at you," and relayed a story about how the local knowledge he possessed helps him adapt his teaching for what he called "teachable moments," another concept common to many teacher's classrooms that I have encountered, as well as experienced in my own teacher education. In paying attention to the particularities of place, much of the results/effects can be unknown, which can fall into the realm of a place-responsive pedagogy (Mannion et al., 2013):

…Place responsive pedagogy is enabled as educators and learners respond to emergent changes and differences found in a unified relational field (Ingold, 2000) of self, other people and the environment. Within this framing, teachers can play a role in curriculum assembling, but other entities, such as the weather and other species, will play a role too. (p. 804)

Francis stated that:

…I think, definitely, when you are taking kids outside and walking around, I think its defiantly being able to -- I stop and see a track. 'Ok, now we are going to teach about tracking, and we are going to teach about what animal could have made this track.' And then, that just opens up teaching about this place, and teaching observation skills. Or you see a grouse run across, 'and now we will teach about grouse.'

These unplanned-for, teachable moments often take one away from the curriculum one has planned for that day and down another path that presents itself in the moment. John

(FSI) stated something similar, noting that he recognizes a shift in his students in this direction, where:

> You are watching these instructors at the beginning, who are like, 'What do I teach? What am I supposed to teach? What's the content?' Where by the end, they are like, 'Where are we going? What opportunity is there in that place?' And that's a little bit of a paradigm shift.

John leads a four-day trip into the Vista National Park with the graduates. He says that "…the idea is just to go up there and say, 'What's the opportunity?' And not that…I'm not having them learn any content…and I guess that I do that, I try to model things, but that's not the big goal." Dylan's description of how place is embedded at FSI resonates with this idea: "…beginning with that connection to place is always part of these programs. Where are you, and what can we learn about this place, that direct experience?" There are static pieces of each of the sites, such as the mountains themselves, but the dynamic pieces are ever shifting: the snowpack on the mountains that does or does not trigger an avalanche due to that year's weather pattern, the migratory patterns of elk and bison and bird, the tracks that are revealed or concealed by the falling of snow…the list goes on and on. "

> ...[W]hile teachers do play a key role in assembling curricular experiences…they are not the sole agents of curriculum making. Place-responsive curricula as lived are brought about by a co-authoring or intermingling of the human and non-human via teacher' (and pupils') responsiveness to a changing and contingent environment. (Mannion et al., 2013, p. 805)

Incorporating these items into one's curriculum seems to require a certain amount of flexibility and freedom to do so.

Julie described FSI's attention to risk management, which is unique to a program like theirs where educators are not only teaching, but having to assess and respond to potential risks and hazards that present themselves in an outdoor environment. These

could also be seen along the lines of being in the moment and having to change one's curricular trajectory based upon the circumstances and happenings that occur. She states that, "…a lot of that is targeted to strategies around grizzly bears, and black bears, and the things that apply to elk, bison, and everything in between." There is much one can do to anticipate how animals might respond to a human, but one has to be in the moment when such encounters occur. Julie brought up the examples of awareness of allergies to bees when bee populations are present and other such scenarios that they debrief their graduate students around.

These patterns could be thought of along the same lines as a place-responsive pedagogy (Mannion, Fenwick & Lynch, 2013), which "…requires in educators a degree of flexibility, creativity, a recognition of differences found in the ecological and social domains, and the ability to respond to places and the entities found there via the contingent facilitation of pupils' first-hand experiences" (p. 803). The participants above describe moments where they allowed flexibility to enter their instruction – they might have had other curricular plans for that day, but then there was a wolf track and, to their thinking, it presented a moment worth teaching. These instructors could have chosen to ignore the wolf track, the grouse, or other in the moment presentations that place might offer, but having the flexibility to be spontaneous and respond to the place by such a facilitation of immersive experience seemed important to the pedagogy of each of these teachers. John brings up the point, "…do we teach to place, and let place teach to itself?" He suggests here that place has its own stories to tell for those that might be willing to listen.

As I consider the above, the process for curricular design that many of my

participants described included an aspect of backwards design, some citing the Wiggins

and McTighe (2005) text, *Understanding by Design,* specifically. All sites described

some kind of framework of educational objectives that encapsulate the programs

themselves – benchmarks and objectives that all graduates should be able to speak to

upon graduating the program. Within this framework, it appeared that many of the

teachers, at the same time, understand that these in the moment occurrences are also of

significance and should be incorporated, evidenced by the interruption of their "plan" in

order to address whatever it is that has presented itself. The juxtaposition here between

the concept of backwards planning – the understanding of where one's students are going

in a lesson and what they will learn (the outcome)-- and the decision to alter the course of

this instruction in order to address some unexpected phenomena, adds a question to my

study similar to one that Amy Powers (2004b) noted in her study of preservice educators

that she describes as follows:

> One lack of alignment in my findings is the responding professors' clear interest
> in using the local environment and local community as a vehicle for teaching,
> and, simultaneously, their impressively consistent use of the national curriculum
> guides, *Project Wild* and *Project Learning Tree.* (p. 10)

Amy Demarest (2015, p.108) described the concept of "place as text," and how this lends

to the unexpected in the educative experience in the following excerpt:

> It is a challenge for teachers that the 'texts' are not always chosen ahead of time.
> It is possible for a teacher to use a primary document or bridge site or involve an
> elder to structure a known outcome. Yet, often, *turning outward* involves this
> element of uncertainty. When students do authentic research in their communities,
> they come to spend more time "looking out" rather than "looking up" information
> because the answers are out in the community. The original discovery ignites

different responses and more questions. It opens up the classroom to the possibility that learning can become more of a shared enterprise with others.

This viewing of place as text is, perhaps, a way to reconcile the philosophical flexibility that many educators seem to need as they encounter and incorporate natural phenomena into their teaching with the more straightforward and preconceived ideas and anticipations that the planned curriculum calls for. Maxine Greene (1988, p. 128) perhaps put this best when she stated that:

> To recognize the role of perspective and vantage point, to recognize at the same time that there are always multiple perspectives and multiple vantage points, is to recognize that not accounting, disciplinary or otherwise, can ever be finished or complete. There is always more, there is always possibility, and this is where the space opens for the pursuit of freedom.

Transfer

Transference of ideas from a site to a student's next location – whether that be in the area in which their education took place or to another location, was a recurring theme that emerged in most conversations. The concept of transfer begins with a recognition, which could be seen as aligned with what Ross and Mannion (2012) called "…'attunement' for the manner in which our perceptive powers are developed through direct, relational, engagement…. We apprehend (we may read here: we 'know') through directly engaging with environment" (p. 309, parentheses included in original). While the actual place in which training occurs is a critical component to this equation (Somerville & Rennie, 2012), Eduardo (FSI) said that, "…we stand pretty firm in that every place is special…So, that model of place-based education we think increases student engagement, increases student learning…and increases a knowledge of involvement in their communities." This focus echoes what Plevyak et al. (2001) discerned in their study of states implementing EE into teacher preparation: "Singling out

one subject area in which to incorporate EE may obscure its interdisciplinary nature" (p. 28). This was also iterated by Kemp (2006), who noted that, "A curriculum that starts with a place and expands to the world would enable students to understand each better" (p. 140). Francis (FSI) also discussed similar ideas on this theme, noting that the question of "…how do we give them the tools here to go back at home and look differently at their community…" was important to the program. Eduardo noted that, "…there are transferrable skills that our grads and then aspiring teacher can take wherever they go next," so perhaps this speaks to why so many of the participants also noted that their program really could work in any setting in terms of the specific skills that students learn regarding educator development. These individuals also acknowledged that they would have to learn the new setting in order to engage with much of the specific ways in which curriculum is constructed at these specific sites, with these places in mind. Eduardo (FSI) stated, "So, we try to focus on things that we think will have a higher likelihood of transferring to the students' home environment." Julie (FSI) described a story that a visiting teacher had told her, where the teacher had described her hometown as "subtle," and this noticing had helped her to encourage "…students find that in their place…the subtleties of their place." As Claire (SOI) put it, "I think once you have that skill set you are naturally inclined to apply it to the next place."

In a study of how memories of an experience in a residential outdoor environmental education program (Liddicoat & Krasny, 2014), researchers found that memories of environmental education "…can influence subsequent outdoor and environmental behaviors, social interactions, and personal reflections" (p. 189). Memories could also be placed into the conversation I had with Dylan (FSI), where we talked about the affective

domain and how the "heart-mind connection is important to experiencing a place and valuing that place." Sara (SOI) further embellished this point as she described the connection the graduates feel as a "taproot" and "wellspring" that they can return to: "So that they move locations, but they can, in their memory, access this place at any point…things shift, that is a kind of support for them as they go off and do what every they do in whatever landscape they do it in." This affective domain piece of transference also applies to Zeke and Anna's (MU) understanding of conceptual development in children and constructing curriculum that connects children to the local environment in a way that is intimate and meaningful to them. Educating teachers in this way, with this notion in mind, would create this as a starting point for them as they travel to their own classrooms – what is local? What is appropriate for my students developmentally? How can we combine those two things in order to speak to the whole child? "This rich and interdisciplinary approach to sustainability education enabled students to be immersed in learning across modes, through time and space in ways that exceed the conventions of the usual classroom" (Somerville & Green, 2015).

The relatability of the skills learned from FSI to a student's own places is something that Julie conveyed as well, noting the potential for impact across education, "…that, to me, is the greatest potential for impact in the long term – in how people connect back to their places and want to take care of them." Transference should, in Julie's mind, inspire a care for one's own places. John also brought up this concept, noting that for FSI as an organization:

> …one of the things we're challenged by is to broaden how we think about place based education. To set our students up and our graduate students to enter the field and say, 'I am a place based educator, and I can come into (city, state) and become a

teacher, and I can be a place based educator there in the midst of, you know some urban or suburban or, you know, rural…

This could be seen in alignment with a complementary curriculum, or "the kinds of experiences teachers provide for students, as well as in the 'pedagogical premises and practices' that result from the teachers' beliefs" (Moroye, 2009, p. 791), as teachers in these settings seem to see transference as a key understanding that relates to many other aspects of that teacher's training. Teacher identity is also important to discuss here, as "…learning to teach is intimately tied to the acquisition of a professional identity as a teacher and that this identity is often shaped by the program or pathway into teaching chosen by a prospective teacher" (Schultz & Ravitch, 2013, p. 36). Here, for John, it appears that this transfer applies, too, to this teacher identity development – that the program itself has prepared the teacher to be able to apply their place based experiences in a wide range of settings, but that the core of their teacher identity rests in being what John described as, "I am a place based educator." Schultz and Ravitch describe the formation of teacher identity: "New teachers do not simply enter teaching with a professional identity intact, nor do they acquire it on their own. Rather it is deeply connected to the communities in which they learn to teach…" (2013, p. 37).

Faculty described the place they are in as special and significant, and they care that this sentiment is translated to students within the programs. If the program location were to change, the program itself would retain, as Dylan (FSI) stated, "…similarities in elements of how we approach educator development…". Francis (FSI) stated that you "could do a lot of the same things," and John reiterated this point, stating that "as far as educational theory, I think it would all be exactly the same." Participants noted, however, that the understanding of place and how that tied into the program would have

to change as well, as illustrated by Julie (FSI) when she stated that their "…ways of understanding place would be the same, but the nature of what we are understanding would change along with it." Zeke (MU) stated that, "It wouldn't be any different. The plants would be different, and some of the habitats would be different, but the same principles would apply." Anna (MU) echoed this idea, noting that "…the more social, cultural things that get focused on, I feel that there would still be…a lot of common ground, and then specific differences, you know, because of the local economy or local industry." Julie acknowledged that the *how* of understanding place – the tools they use to connect with place – would remain the same, but that the *what*— the knowledge of the local would change. Dylan stated that there are certain stories present in a place, and that "…places inform how we teach…the stories we are able to connect to. If we were in a different place, we would have different stories." Francis spoke along these lines, using the word "tools" similar to how Dylan described stories. John (FSI) called such stories or tools "discreet knowledge," acknowledging that this piece would have to change. Julie noted that the ecology of the new place would be different, and that they would teach in different ways depending on the unique facets of that new location. Both Anna and Zeke (MU) recognized the need to re-familiarize oneself in the new location via things like coming to know the local flora. "We are going to teach you to use *this* environment," said Scott (MU), "or to use the environment outside, you know, adjacent to your schoolyard. And yes, you've got to learn the plants…but you need to do the same thing wherever you wind up." As Anna said, "…our focus on human development and conceptual development, that seems like that would be the same…the core approach would be the same, and the particulars would all need to change."

Sara (SOI) emphasized that, "…there are particularities to each one of these places that can't be repeated, right…And I think it is important in education to some of the patterns can be repeated, but those places really are unique." While Sara sees the skills that they are teaching, the *how* one might become a teacher in such a setting, the setting itself is unique and not replicable the way that skills or content might be.

Affective Domains

Many participants noted that attention to more affective domains are present in their teaching, which could be seen as connecting the practice of education to the care of self and place. As Dylan (FSI) put it, if a student is "…not connected here [points to heart], the it's not happening here [points to head]." This aligns with Gruenewald's (2003) assertion that "places are profoundly pedagogical" (p. 621), and that the particularities of a place shape those that interact with that place. Julie (FSI) acknowledged "…the connection to…place is a pretty personal thing."

Julie went on to say that this connection to place inspires care of/for place (Noddings, 2005) when she stated, "I think teaching the skills and tools to understand your place through inquiry, and then to act on behalf of the places where you live…those are the things that our planet needs." This type of feeling was reinforced by Francis (FSI), who stated, "I think that kind of represents, not only just the beauty of what we have here, not only in the Stone Mountains, but on earth, that we need to take care of that," and can be seen aligned with Ecological Care (Moroye & Ingman, 2013), which will be detailed further in the following section. At SOI, Sara described "magical moments" of "communal wonder," such as snow geese exploding from their hiding spot, that she experienced with her students. She saw these experiences connecting to students

on the level of affective domains, but also connecting them to one another and to the place itself. This could be seen in alignment with Chawla's (2006) work concerning Significant Life Experiences, which "…is a cohesive, self-referencing tradition that centers around the common goal of understanding people's own explanations of their environmental feelings and actions" (p. 361). Sara recalled her own graduate experience, reminiscing on her room during her program and how that room was a "taproot" where she could return at any time in her mind. Sara said that she felt there was "…something to be said for providing students with a kind of refuge in life." This statement demonstrates her care for her own students, in that she wants them to have that memory to return to in their minds, but also her own affective connection to the area of which she speaks – her "refuge."

Concluding Thoughts

The three themes discussed here fuse around a set of recommendations for meaningful teacher education and development. *Place responsiveness, transfer,* and *affective domains* serve to stand united when considering what it means to consider teacher education from a place or ecological point of view. These themes are not all-encompassing for each of these sites, and do not represent every nuance and facet of what makes these programs unique. They do, however, serve to bring forward three notions of what educators in these programs perceive as significant aspects of their programs. Other programs that seek to incorporate more of these place-based aspects into what they do to train educators can perhaps utilize these recommendations to enhance the work they already do. Standing together, they offer an interesting insight into a portrait of connectivity – of threads that travel back and forth and stitch these practitioners to their

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places, to their work, and to one another in a manner that does what Moroye and Ingman suggested, in that they "…connect us with future experiences in a positive direction…[they] send us down a path of 'growth' (2013, p. 591).

Research Question Three

I turn now to my third research question, which discusses the significance for teacher preparation of discerning the characteristics and faculty perceptions of a program's ecological focus. Chawla (2006) notes, that "Many environmental education programs are constructed on the false premise that knowledge about issues is sufficient, and that knowledge itself will lead to action" (p. 360). It stands to reason, then, that a shift in thinking is necessary when understanding and teaching ecological concepts. In that light, considering the significance for teacher preparation of discerning the characteristics and faculty perceptions of the ecological focus of their programs, I will utilize the framework of ecological mindedness (Moroye & Ingman, 2013). Described as a "…habit of mind comprised of, and developed through, three qualities: ecological care, interconnectedness, and ecological integrity" (p. 589). Moroye and Ingman (2013) suggest that "…ecological mindedness may serve as a bridge between ecological reform efforts and the current practices in traditional K-12 schools" (p. 589). I suggest that it is this bridge of ecological mindedness to teacher education that may serve as an entry point of connection to the larger discussion of how teachers are prepared to teach. I will discuss the significance of this study through the framework of ecological mindedness, which is comprised of three parts: *Ecological Care, Interconnectedness, and Ecological Integrity*. I follow these sections with a discussion of my addition of Place to Eisner's ecology of schooling.

Ecological Care

Ecological Care is broken into three sections by Moroye and Ingman (2013): *Caring for self; Caring for animals, plants, and the earth; and Caring for strangers and distant others.* The authors note that their theory of care is rooted in the work of Noddings (1992, as cited in Moroye & Ingman, 2013). These three topics blended together in this study, intersecting and crossing several times.

Caring for self. Moroye & Ingman state that caring for self, "involves the physical, spiritual, occupational, and recreational life" (2013, p. 596). This care was seen demonstrated by many of the participants in this study. For some this connection was spiritual: Francis (FSI) stated that "the wildness of this place really speaks to your soul." For others, the connection was a blend of personal and recreational: Dylan (FSI) noted that, "…when I saw this area, I was immediately drawn in by it. The smells of the developing fir in the forest, and …the mountains themselves…climbing up these peaks and skiing just completely blew me away." And for others, the connection was reflective: Scott (MU) recalled the moment when he knew he wanted to work to help others enjoy the environment as he walked in the forest and ran his fingers through the pine boughs. The staff at both SOI and FSI have moments of reflection at staff meetings where they bring up topics that relate to their work (such as balance and mindfulness). Claire stated that "…we think deeply about our practice and the way that we practice."

Caring for animals, plants, and the earth. An understanding of "…the effects of [our] lifestyles on the lives of others…" (Noddings, 1992, as cited in Moroye & Ingman, 2013, p. 597) is another category under Ecological Care. This embedded sense

of care was present in many conversations across sites, demonstrated by Julie (FSI) and

how she sees her work:

> I think that teaching the skills and tools to understand your pace through inquiry, and then to act on behalf of the place where you live thorough design, or problem solving, or even a strengths based approach of appreciating and improving what 's going well there, to me, those are the things that our planet needs.

Zeke and Scott's (MU) described activities that calculated the carbon footprint present in

an aspect of the town's design, such as the effects on pollution that the installation of a

roundabout had, or the most carbon-effective route to the store from the school.

Caring for strangers and distant others. The work of a teacher is, in part, in

the preparation to care for others that we do not yet know. Teacher education attempts to

equip students with the tools they will need to work with and help students in the way

that is best suited and tailored to those students' specific needs. While FSI does engage

with teachers in other countries, and the draw of all three sites have brought students

from myriad places and backgrounds, many of the sites discuss how they can continue to

help their students and their staff to continue to keep this issue on the forefront of their

minds. Julie notes that she strives to connect her students "…to place on different

scales…just to help the grad. students to see the different layers in this community." She

states that "the inequities of this town are really apparent." Dylan (FSI) notes that "…one

of our goals as an organization we are looking at diversity, equity, and inclusion how we

approach educationally…is important for us as an organization."

Interconnectedness

"Interconnectedness is conceptualized…as an acknowledgement of various and

eclectic notions of the relationships among all things" state Moroye and Ingman (2013),

and that while there are many diverse foci when it comes to the literature pertaining to

interconnectedness, that "…we celebrate the diversity of these approaches to interconnectedness because we acknowledge that the eclectic is much more amenable to actualizing continuity and interaction in the classroom environment" (p. 599). FSI and MU described their frameworks for understanding place, the facets of which worked together and were discussed as a whole, and point to the interconnectedness of the program designs in terms of this thinking. For Claire (SOI), there was a shift in her thinking regarding place that she expressed: "I increasingly think of place based education like the human side of pace based education and what it is to be here." Both Eduardo and John at FSI described how place encompasses more than the location of the program.

At SOI and FSI, participants described the local issues and how they connected to them through their classwork. At FSI, Dylan described the "mediations" that his classes partook in where they learned about issues that effected the community and interviewed the stakeholders in order to better understand all sides of the issue. At SOI, Sara said that their state is "…a great place to just think about some of these natural tensions that are going on and try to think about how to build better conversations…". She is trying to source beef locally for their kitchen, for example, noting that "…those kinds of relationships can be really helpful in broadening our questions—the way we think about ourselves."

The interconnected concept also goes along with what Anna and Zeke described as integration at MU – a means of incorporating the surrounding community with local investigations and child development in mind. Students are encouraged to incorporate the things they learn in their classes into their practicum. Scott (MU) stated that, "…we

expect them to apply the things that we've been having them apply in the other classes…it's not a mandate, but because they are here, it is quite natural for them." Incorporation of the place based aspects that they are learning from class, from their professor's modeling, become seamless to implement from practice. "Caring, seen in this light, is not an abstract notion, but an embodied action, to be carried forth and received by each of us" (Moroye & Ingman, 2013, p. 599).

Ecological Integrity

> We suggest that *ecological integrity* as the alignment of beliefs and actions, which materialize as dispositional qualities resulting from a comprehension of interconnectedness and ecological care...we place primary importance on the *perception* of interconnectedness so that it might actualize ecological integrity. (Moroye & Ingman, 2013, p. 604, emphases original)

The concept of ecological integrity as expressed by my participants was manifested in several ways. There were the instances where participants, such as Julie at FSI, directly declared that it is important to take action to care of the planet. There were the moments where participants, such as Francis or Dylan at FSI, declared their love for the place they were in and the work that they do there. Participants looked outward from their program, seeking connections to community. Participants honored the voice in their head as they instructed, deciding to stop when something presented itself in the moment and spend time on that instance and happening before it passed them by. Participants reflected on the desire of their organization and their peers to question what they are doing, to be sure that what they are doing and why they are doing it is in alignment with their program goals and what is best for their students. Participants expressed their desire to understand the individual students in front of them, first and foremost, as individuals and to honor their unique capabilities and strengths.

Discussion of Implications for Education

Noddings (2005) notes, "Teachers, like students, need a broad curriculum closely connected to the existential heart of life and to their own special interests" (p. 178). Such a curriculum rests in these word choices – "closely connected"—they are integrated, woven in. Teachers should learn to provide educative experiences on their path towards their own classrooms, but such experiences are not separate from life – they are the real world, the "heart of life," which was apparent at the ecologically-focused teacher education and development programs that I studied. Noddings encourages teacher education programs to allow their students to draw such connections and to dissolve the strict alignments so commonly seen between discipline and practice as the frontrunner to passion and interest. She continues:

> Perhaps the most fundamental change required is to empower teachers as we want them to empower students. We do not need to cram their heads with specific information and rules. Instead, we should help them learn how to inquire, to seek connections between their chosen subject and other subjects, to give up the notion of teaching their subject only for its own sake, and to inquire deeply into its place in human life broadly construed. (p. 178)

While some of the programs I studied did have a scientific grounding, the clear intersections between curriculum, place, and community within the programs seem to allow the faculty to meld many of their interests as they instruct, which could be seen as a means by which ecologically focused teacher education and development programs help future (and practicing) teachers to grow in their knowledge of how to design and provide educative experiences.

Moroye and Ingman (2013) state that, "Educative experience is best understood through directly reviewing Dewey's criteria for such an experience: continuity and interaction" (p. 591). Ecological mindedness is described by Moroye and Ingman in the

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K-12 educational setting, but its importance extends to practicing and pre-service

teachers as well:

> As students come to an understanding of interconnectedness, they begin to see themselves as central components of the content…the experience becomes one of relationship…when themes of interconnectedness and care coalesce through ecological integrity, the students' own actions in the world are acknowledged as the driving force behind environmental considerations. (p. 606)

Practicing or educators-in-training that approach this framework may not consider

themselves to be "ecologically minded," but if, "…experiences include qualities of

ecological mindedness, they provide the possibility for educative experiences while

simultaneously incorporating vital themes of EE" (Moroye & Ingman, 2013, p. 606).

The ecologically focused teacher education and development programs in my study

seemed to recognize such a possibility and also what Gruenewald (2003) stated, in that:

> The point of becoming more conscious of places in education is to extend our notions of pedagogy and accountability outward towards places. Thus extended, pedagogy becomes more relevant to the lived experience of students and teachers, and accountability is reconceptualized so that places matter to educators, students, and citizens in tangible ways. (p. 620)

The concept of relevancy described by Gruenewald is significant for programs such as

the ones that I studied, and also aligns with Linda Darling-Hammond (2006), as she

described the idea of "…coherence…how these programs develop knowledge that

transfers to practice" (p. 97). This desire for coherence and transfer is also present in the

writing of Noddings (2005), as she discussed care and education (integral, as described in

sections prior, to the theory of Ecological Mindedness proposed by Moroye & Ingman,

2013).

Thus far in this section, I have first described how in the work of those who train

future and developing teachers, paying close attention to the interests and day-to-day

connective experiences in any teacher education or development program is critical as future teachers enter their own classroom. The sites that I studied all attended to the notion of the local, of the places in which the program resided, but this is something that all teacher education programs can do. Through the work of Moroye and Ingman (2013), Gruenewald (2003), and Darling-Hammond (2006), I next showed how my study helps to support the concept of extending the idea of ecological mindedness from K-12 into the teacher education and development settings as well. Again, it is important to recognize that while the sites I studied are ecologically and place focused, all teacher education programs can utilize aspects of this framework as they immerse their developing and practicing teachers further into what it means to teach as a member of a community – as a member of a place--wherever that place might be.

This notion is further supported through a recent study of ten teachers by McConnell Moroye and Ingman (2017), where the authors found that there was clear "…relevance of ecological mindedness for various avenues of teachers' practice, including relevance for engagement, life beyond school, and content" (p. 12). The authors propose that while the aims of ecological mindedness serve the environment, yes, they also serve the aims of general education as well. This finding is congruent with the findings in my study – that sites that train teachers with an ecological focus act in a manner that serves to "…bridge the gap between the theory of environmental education and the practice …" (p. 13) of teacher education.

The Place Dimension

While it has been noted that "…despite the widespread institutionalization of environmental education, schooling and an ecological consciousness of places are

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fundamentally at odds" (Gruenewald, in press, as cited in Gruenewald, 2003), there are educational models working to reconcile this difference. Place based education is central to the sites that I studied. Elliot W. Eisner (1976) saw that the "…major contribution of evaluation [is] a heightened awareness of the qualities of that pervade classrooms" (p. 140). Place is, in other words, one of the main qualities of each of the practices of the teachers with whom I spoke; it is "pervasive" at these sites. What it is to have an awareness of how such a quality is present and understood was an aspect of my study that seemed to elude Eisner's ecology. Through my study, I propose the addition of place as a dimension of Eisner's ecology of schooling as an additional lens for viewing and evaluating this aspect of classrooms. As mentioned in Chapter Four, many different additions to this ecology have been proposed by scholars, encouraged by those who note that this ecology "…is not set in stone" (Uhrmacher et al., 2017, p. 24). The addition to this ecology has significance for both the preparation and development of teachers, but also for the future students of those teachers as, "…from the perspective of place, the primary benefit of doing local histories is the process of learning and caring more deeply about one's home community and all the places beyond the classroom" (Gruenewald, 2003, p. 638-9).

Further Research

While each of these teacher education sites were chosen because of their focus on place and ecological teacher education and development, it would be interesting to study students that have been through these programs (and others similar) to understand more about what they learned from these programs and how their perceptions of the place or

ecological focus under which they learned to teach has influenced their current practice, if at all.

It could also be interesting to do additional research that addresses this study's limitations. Although interviews were the primary source of data for my study, it would be wonderful to have had the opportunity to observe more of my participants teaching, and this could be another added layer to this study in the future. It would also be interesting to follow up with some of the students from these programs as they enter or re-enter their own classrooms to see how the perceptions of the programs as described by faculty and the qualities and characteristics of the programs themselves make their way into their teaching, if at all.

Conclusion

Coming to a better understanding of how educators understand and enact their program foci allows for a deeper glimpse into the art that is teaching. If, as Orr (1992) suggests, "…that the way education occurs is as important as its content…" (p. 91), then examining how teachers describe their understanding of the foci of their programs is important to bear witness to. When I consider this study and the unique individuals and sites that allowed me to become a part of their lives, I am thoughtful of the word *intentions* – what is it that we intend for our students? For our communities? For our impacts on the fabric we inhabit? Intention comes from the Latin "to stretch out…toward" (etymonline.com, 2017). The intent of each of these sites, as communicated to me, appeared to pertain to connection, care, and further growth. Aspen trees are repeatedly described as one of the largest organisms in the world with root systems spanning miles and miles and miles. On the surface, each of these trees seems to

stand independent from its sister next door, but a closer investigation just underneath the soil shows a connection that is much deeper, much more intricate, and much more far reaching than could have ever have been imagined. The fact that place is at the forefront of the structure and foundation of each of these sites speaks to the values purported by each site, and this recognition was carried forward by each of the faculty that I had the fortune to speak with. An awareness of the vast nature of what it is to authentically engage students in place begins with the self – what that place means to each person who comes into contact with it, and the faculty seemed to honor this recognition with an awareness that this idea is different and unique and even sacred to the experience of the individual. Continuing the conversation about place and ecological education in settings of all kinds – from large cities to remote islands – can only serve to better understand these concepts and how they serve the students we have the honor to teach.

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APPENDIX A

INTERVIEW GUIDE

1. Tell me a bit about your background, including some of the personal/professional information you wish to share.

   A. How did you come to teach in this teacher preparation program?

2. How would you describe the main qualities and characteristics of your program?

3. What do you think makes your teacher education program different from other teacher education programs?

4. Your program's website describes an ecological or place-based connection, which is one of the reasons I was interested in studying your program. Could you tell me a bit about how you perceive this connection, if at all?

5. If you chose to take a photograph, could you tell me about the photograph you took?

   A. What story does it tell to you or to others that might see it
   B. What are the key elements here that mean the most to you?

6. If taught in a different landscape (for example, near the ocean instead of the mountains) how do you think your program would be different, if at all?

7. What is your process and/or key inspiration(s) for designing curriculum?

8. Is there anything else you would like to add before we conclude?

APPENDIX B

PHOTOGRAPH GUIDE

Before we meet, I ask that you take a photograph that tells a story about the place where your program resides. This is not a requirement of our interview, but it could help as we discuss some of the ideas present in the study.

This photograph can be captured using whatever medium you have access to, but the image should be accessible during the interview.

There is no "right" answer to this prompt – it is just another way for us to talk about your ideas.

I will ask for a printed or digital copy. The photograph will be kept on a zip drive (if digital), and in either case will be locked in a cabinet that only I have access to. It will be destroyed (deleted) at the end of the data analysis portion of the study. The photograph will only be seen by you and I, and when it is described in data analysis, no identifying characteristics of the participant or location will be disclosed.

APPENDIX C

INSTITUTIONAL REVIEW BOARD APPROVAL

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

DATE: November 7, 2016

TO: Rosalind Wright, Doctoral Candidate
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [976539-1] Ecological Teacher Preparation: Rooting Place to Practice
SUBMISSION TYPE: New Project

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS
DECISION DATE: November 7, 2016
EXPIRATION DATE: November 7, 2020

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Rosalind -

Thank you for your patience with the UNC IRB process. Your application is exceptionally well-prepared and focuses on interesting and relevant research.

Your materials are verified/approved exempt without request for submission of revisions or additional materials. However, please heed the following with regard to your protocol:

1) the photographs and any other artifacts supplied by participants may NOT include the images, names or otherwise identifiable information about others (especially youth) as their consent would be required for use as data in your research.

2) any and all documentation of permission to recruit and/or observe for the purposes of data collection should be submitted as amendments to your IRB application so that it is included in the files at UNC.

Best wishes with your research and please don't hesitate to contact me with any IRB-related questions or concerns.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

Generated on IRBNet

Institutional Review Board

DATE: January 20, 2017

TO: Rosalind Wright, Doctoral Candidate
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [976539-3] Ecological Teacher Preparation: Rooting Place to Practice
SUBMISSION TYPE: Amendment/Modification

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS
DECISION DATE: January 20, 2017
EXPIRATION DATE: November 7, 2020

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Please add the site permissions (as an Amendment/Modification in IRBNet) when you receive them. At that time you may conduct the study.

Best,

Maria

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.