

THE INTERSECTIONS OF FOREST SCHOOLING AND A PUBLIC SCHOOL:
AN INTRINSIC CASE STUDY OF A VERMONT KINDERGARTEN

BY

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THESIS

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ABSTRACT

The purpose of this study was to understand how and why one public kindergarten classroom in Vermont is using forest schooling as part of its curriculum. The school was purposefully selected for its unique methods – a public school classroom in the United States spending one full day a week outdoors engaged in forest schooling. Research was conducted using a qualitative, case study approach. Observations and interviews illuminated how this classroom incorporated alternative schooling practices into the context of a public elementary school and gave insight into the program’s significance. Though generalizations cannot be made from one case, my goal was to provide a rich description of the program to allow readers to develop naturalistic generalizations. The subsequent thematic analysis of data helped me capture meaning that wove through the text and allowed for a deeper understanding of how and why the program exists. I found that the classroom uses forest schooling to explore intersections between rigorous academic standards and developmentally appropriate activities, as well as technology and nature to work toward a more student-centered and holistic approach to education.

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CHAPTER 1: INTRODUCTION

Narrative

From 2010-2014 I was an elementary school art teacher, teaching in what is considered a “failing” public school – one that found itself in both academic and fiscal distress. Once a state’s Department of Education declares that a school has reached this status, they create an academic recovery plan and monitor the school closely. For our school, this meant the focus of the school day, including the schedule, curriculum, and content, became about improving test scores. The only way to receive state funds and avoid a state takeover of the school was to meet AYP or Adequate Yearly Progress as determined by the No Child Left Behind Act (“Adequate Yearly Progress,” 2011). In order to do so, a school must increase the number of students who score proficient or advanced on standardized tests. The district where I taught was required to hire outside consultants to improve test scores. They asked teachers to document data, look at graphs, speculate, modify and adjust; they gave us pacing guides, tutoring programs, and pre-determined structured curriculum. Students were data. Not once did we discuss the individuals, child development, or what they as human students needed to succeed. We questioned why their behavior was bad, but never looked to whether or not it could be the content and curriculum that caused the students to lose focus. As an art teacher, I was asked to devote some of my class time to writing exercises and to cover standards for the core subjects. Specials classes and recess time were shortened to make time for an all school literacy block in the morning. Curricula throughout the school were determined by the end-of-year test.

To encourage students to do better on these tests the school had assemblies and hung posters. Each classroom got testing t-shirts. Curriculum specialists rallied them over the loudspeaker. And the administration even arranged a trip to U.S. Space Camp for students who

could score proficient and advanced. The goal was to get the students geared up and motivated for testing! But subsequently, we taught them that they only engage in learning to take a test and that only their test scores matter. When testing was done, the flurry stopped. Many teachers showed movies and students wandered the halls, while some ambitious teachers led hands-on projects they “didn’t have time for” when they were preparing for the standardized tests. In mid-April, a sixth grade student asked me if she could work on a free sewing project in the art room during my prep period, which fell during her math block. I replied that she could as long as her teacher confirmed that it was ok. I also asked, “Aren’t you doing anything in class?” She replied, “No. Testing’s done so we’re not learning anything anymore.” Education – and consequently– learning, to her was reduced to merely the act of testing.

That student’s response struck a chord with me and prompted me to investigate how students learn outside of what I saw as “traditional schooling.” I use traditional here to denote schools that are split by grade-level and subject areas, employ state and national standards, are assessed using standardized testing, and mainly use prescribed lessons and curriculum to dictate daily activities. I became interested in alternative learning environments because they contrasted the “education as testing” mentality of the school I worked in and provided alternatives to what I perceived as traditional schooling methods. Play - kids tinkering and experimenting with materials and content, inventing new games and stories, or engaging in other hands-on, experiential learning opportunities - stood out to me as something that was included in many alternative schools but lacking in my public school. I realized that my school had almost completely eliminated this kind of student-led experience as a source of learning. Seeking an alternative to education as testing led me to discover forest schooling, where exploration and experimentation are readily used and accepted. While it may be a bit cliché to run from the test

and into the woods, it provided what I consider a rehumanizing of education - or a focus on the students' growth and development rather than a school's needs for funding. I was interested in how these principles could be integrated into public school settings, like the one where I had experience teaching, and how that would change the way students experienced schooling. It is easy to vilify public schools, administrators and teachers in the "age of accountability," criticizing them for "teaching to the test" or conforming to a standardized curriculum. This research is not seeking to add to that mentality, but instead to show that schools are not entirely prescribed by standardized policy. Many schools have had to negotiate the pressures of new mandates and required curricula. However there are schools that have shown they are not entirely determined by them either. Some schools, like mine, choose or are mandated to focus most of their energy on standardized testing. However, some teachers and administrators across the nation are developing strategies to incorporate alternative beliefs about education into their schools within the system of standardization and accountability. In this reality, my idea of "traditional public education" has shifted to consider local phenomena. The traditional public school is indeed a living, breathing, dynamic entity that is defined by the people who occupy it. This research attempts to present one such "traditional public school" exploring the intersection of public school standards and alternative schooling practices.

The site I selected for this research is a kindergarten classroom located in a public school in Vermont, which I will call Mountain School. In 2013 the school adopted the use of forest schooling practices into one of their three kindergarten classrooms, one day a week. This classroom went outside for most of the school day and adopted many of the practices found in forest schools such as the use of sit spots, free play, and a rain or shine mentality about their outdoor time. The classroom currently serves 20 kindergarten students, has one classroom

teacher, one forest school specialist, a shared classroom aid, and various parent volunteers who assist on forest school days. Overall, 37 students have participated in the forest schooling program between the years of 2013 and 2015. Other classrooms at the school use the school's outdoor space, however this classroom is the only one to use the space consistently as a forest school each week. The aim of this research is to present a detailed description of the forest school program at Mountain School, as well as engage in thematic analysis of the data. This research can then inform others who may be interested in incorporating forest schooling into public school contexts and uncover suggestions for future research.

Statement of Research Purpose

There has been increasing attention paid to nature education and forest schooling by environmental organizations and the popular media. After Richard Louv's (2008) coining of the term "nature deficit disorder," (a phrase used to describe a divorce between humans and nature that causes everything from a lack of respect for the environment, to a wide range of behavioral issues and obesity) individuals and organizations have focused on how to get children outside. At the school I taught in, we increasingly kept students inside for bad behavior, if the weather was anything less than perfect, or as a way to make up academic work. At the same time, campaigns such as "Discover the Forest" and "Let's G.O. (Get Outside)" encourage children to bond with nature through increased outdoor exposure ("Reconnect Your Family With Nature," "Let's G.O.," 2015). Documentaries like *Project Wild Thing*, made by a father interested in getting his kids to spend more time outside and *School's Out*, which features a forest school in Switzerland, present the contrast of time children spend indoors verses outdoors. Recently, large popular media sources such as *The Atlantic* and *The Washington Post* have run several pieces on nature deficit

and the positive affects of nature on human happiness and health (Hamblin, 2015; Khazan, 2015; Mooney, 2015; Schulte, 2015; Adler, 2013; Ryan, 2013). This public exposure may prompt schools to investigate methods for incorporating more nature or outdoor time into their curricula.

I recognized forest schools to be a site where the focus on nature exposure and schooling already merge. Though when looking online at dozens of forest school programs throughout the U.S., I found that most were privately run. However, I also found a public school that is implementing a modified forest school model. For them that means taking their students outdoors once a week to participate in a full forest school day. They go outside rain or shine, allow students time to play freely, provide opportunities for manageable risk, employ the use of sit spots, and engage in an emergent curriculum. Because I found little academic research in the area of forest school practices and public school, I decided to design an exploratory case study that would focus my research on the description and analysis of those practices. The study is a way to better understand how forest schooling works within the realm of public education. I specifically focused on resources the school needed to establish their program and why they thought it mattered for their students. My intent was to provide information to other schools and educational stakeholders that may be interested in this model. I investigated this case using the research question:

How do the principal and teachers of a Vermont school describe using forest schooling in their kindergarten classroom? How do they describe its purpose?

Summary

My desire to learn about this public classroom's decision to include forest schooling into its curriculum stems from my experiences working in a school that was driven by test scores.

Compared to my school, forest schooling could be described as more flexible, emergent, and focused on child development. Environmental organizations and popular media are increasingly emphasizing the benefits of nature exposure which may lead some schools to investigate how to incorporate it into the school day. However, there is a tension between the emergent practices of forest schooling and what many people believe children need to be ready for both higher education and the workforce. The following chapter will present a background on forest schooling, the historical debate of school readiness, and the framework of sociocultural theory. These concepts will establish a foundation for understanding the significance of the contextual shift from an indoor classroom and curriculum to an outdoor learning environment and practices associated with forest schooling.

CHAPTER 2: INVESTIGATING THE ISSUE

A Brief History of Forest Schooling

In the United States, there is increased interest in forest schooling as an alternative form of early childhood education. Examples of this growth can be found in the number of forest schools appearing around the nation and in the adaptation of forest schooling by Mountain School - the public school in this study, as well as a public school in Georgia (Carroll, 2015). According to Bailie (2014), the first nature preschool in the United States was founded in 1967. However, the concept was largely unrecognized until the first modern iteration began in 2007 (Kenny, 2013). From that time, the number of forest schools in the U.S. has grown to over two-dozen (Bailie, 2014). Further, Mountain School was featured on the NPR program *All Things Considered* (Hanford, 2015) in May of 2015, which the principal explained has resulted in thousands of emails requesting more information about their program and has drawn many visitors who are interested in how to develop programming of their own. The increased interest in forest schooling has also led to the formulation of networks both online and in person. A Facebook community group called “Forest Schools USA” has approximately 820 members. The *Children and Nature Network* has included a community forum on their website specifically for educators who “[use] the natural world as a powerful learning environment” (Natural Teachers, 2015). In June of 2015 I attended a conference in Vermont that focused on nature-based early childhood education. The conference, put on by Antioch University, was a part of the In Bloom Conference Series that the university began offering in 2012. Antioch University has also developed a nature-based early childhood MEd certification program within their Department of Education to train teachers, administrators, and founders of nature preschools and forest kindergartens. The development of each of these programs and networks suggest that there is

increased interest in the inclusion of nature education or forest schooling into educational contexts.

Forest schools utilize free play, exploration, and engagement with the natural world to inspire an unstructured curriculum. They are rooted in many nature and play-based educational models. Froebel's [1782-1852] original Waldkindergartens, Rachel and Margaret McMillan's [1860-1931] open-air nursery, Maria Montessori's [1870-1952] educational philosophy, and Kurt Hahn's [1886-1974] outdoor adventure education program have all inspired forest schooling (Cree & McCree, 2012). Like these and other educational movements, the rising interest in forest schooling in the United States can be seen as a reaction to the social and political climate of the time. For example, the McMillans' open-air nursery was a response to the poor health of English children in the wake of the Industrial Revolution and WWI (Cree & McCree, 2012); while modern forest schooling can be seen partly as a reaction to urbanization and Louv's (2008) "nature deficit disorder." Forest schools also share historical roots and characteristics with civic organizations such as the Boy Scouts (Shields, 2010), though their current resurgence tends to address the critique of standardization and increased technology rather than promote survival or militaristic skills. By exploring and understanding these historical roots, we can better contextualize the renewed interest in outdoor learning and more specifically, forest schools.

Many forest schools in the United States are modeled after Sweden's *I Ur och Skur* meaning "rain or shine" schools, established by Siw Linde in 1985 (Robertson, 2008). The concept for the school came to Linde after she served as a Skogsmulle teacher in the 1970s. Skogsmulle is an outdoor educational initiative for children that began in Sweden in 1957 (Joyce, 2012). The program uses a woodland character, "Mulle" to teach children about nature. Many

Swedish communities developed volunteer led Skogsmulle schools that would meet once a week for a few hours, similar to a Girl Scout or Boy Scout troop. The schools always met in the forest and were focused on teaching children to love and care for nature. Linde noticed how engaged children were when they were participating in Skogsmulle programs. She began to wonder how the concepts would translate to a full time nursery school, which led her to develop the first rain or shine school. These schools use the forest and its natural resources like trees, rocks, and plants as the foundation for learning, in the development of stewardship, and to build an interrelationship with nature (Robertson, 2008). In this form of schooling, children are outside for most of the school day, regardless of weather.

A major characteristic of forest schooling is the use of “wild spaces” - natural spaces that offer children the promise of interaction, loose parts, and manageable risk. Usually, as the name suggests, the schools take place in the context of a forest. However, some schools use parks, prairie land, or creek beds to engage in outdoor learning. The outdoor, experiential learning found in forest schools is different from learning in indoor classroom spaces because the outdoor environment provides different material conditions to mediate learning. One of my assumptions is that the outdoor spaces used by forest schools are large and lively, providing the opportunity for more movement, noise, and interaction than smaller, indoor spaces. The space also provides children access to natural materials, including bugs and plants to observe, and trees to climb. Forest schools allow for unstructured time for students to engage in this independent observation and play. Forest school instructors approach play in multiple ways: as a guide for learning, as a means to promote social skills, and as a tool for community-building among peers and teachers (Knight, 2011). This approach that includes play contrasts the structured, teacher-led lessons I saw throughout the school I taught in – lessons taught in spaces that were often literally sterilized

with the use of hand sanitizer and bleach wipes. These sterilized environments and actions contrast the “wild” outdoor spaces used by forest schools.

In forest schools, students often construct knowledge through independent observations and organic group collaboration. Forest school teachers can then expand on student discoveries and interests and develop their understanding by providing supplemental information or resources. During a forest school day students and teachers use books to inspire their imaginations. They also take hikes and observe their surroundings in “sit spots” (Strich, 2012). Teachers guide students to make fires, prepare and cook snacks or tea, and use tools. Students build forts or fairy houses, learn new outdoor skills, and make art with leaves. They have the opportunity to run, jump, sing, pretend, discuss, and discover freely. Teachers facilitate and allow students to create learning experiences through these activities. They encourage students to ask questions, and research topics of interest. Teachers add their expertise or insight to help students progress from the known to the unknown and back again. While natural spaces obviously provide a classroom for environmental education, these spaces also can be used to support learning in multiple subject areas and encourage personal development. However, it is up to the teacher or adult leaders to help students establish these connections and ready students for schooling in the middle and upper grades.

Forest schooling is difficult to adopt in many public school settings. While the always-outside, rain or shine, aspect of forest schooling can be considered beneficial to grounding students in a place (Sobel, 2008), fostering stewardship toward nature (Chawla, 2006), and even boosting immune systems (Kenny, 2013), public schools may struggle with a lack of resources to take their students outside. Forest schooling can be resource-intensive, requiring land and gear such as rain boots and winter clothing for each child. The necessity for a very high teacher-to-

student ratio is also a barrier because public schools need to provide supplementary teacher's aids or recruit volunteers. Further, the need to accommodate students with specific physical or emotional needs makes it difficult for teachers to take all of their students outside without additional help from trained aids or adaptive equipment. Additionally, accountability measures in school, including standardized testing, might cause teachers to feel like they do not have time to stray from a more standard, structured curriculum. There may also be tension between the risks that students are encouraged to take during forest schooling and what parents or schools perceive as safe. However, even if schools are unable or unwilling to run a full-fledged forest school program, I selected the school in this study to provide an example of how school administrators and teachers adapted certain aspects of forest schooling to suit the needs of their students and school.

One of the most significant barriers that may prevent public schools from adopting a forest schooling approach is how administrators, teachers and parents perceive the emergent and exploratory practices of forest schooling as contradictory to their charge to prepare children for academic success. Indeed, in this study, teachers and administrators often commented on the ways in which they had to negotiate this complex and seemingly contradictory landscape. The next section will discuss the way "school readiness" has influenced American early childhood education and the implications it has had on forest schooling.

The Readiness Debate

The accountability mindset that permeates much of the modern educational system in the United States generates skepticism of the practice of sending children into the woods rather than into desks to begin their academic careers (Elkind, 2007). Some parents worry that if their child

is not learning letters and numbers at the same rate as those in “traditional” preschools and kindergartens, s/he will be academically limited as s/he enters first grade. The more exploratory model of teaching and learning found in forest schooling could be seen as in conflict with readying children for academic skills and content. However, supporters of the whole child approach to readiness argue that developing executive functioning, social skills, and other components of child development give students the foundation they need to learn content later. Supporters of the forest school movement cite their ability to provide students these necessary foundational skills (Knight, 2011; Kenny, 2013; Sobel, 2014), and therefore believe that forest schooling can ready students for future academic success. The debate of school readiness is not limited to the discussion of whether or not forest schools prepare students for academic endeavors. The concept of readiness is complex and frequently questioned by scholars, policy makers, and teachers across the educational system.

Historically, the idea of readiness has been debated and changed as various academics and governmental players have advocated for and instituted policies relating to education. National educational initiatives and content focused views of school readiness may be two reasons forest schooling is not prominent within the realm of public education in the United States. During the Cold War, the Russian launching of Sputnik shifted America’s focus from whole child to cognitive development. Subsequently, early childhood education programs began being assessed based on student IQ scores (Zigler & Bishop-Josef, 2004). In 1989 the U.S. government established six national education goals. The first of these declared, “By the year 2000, all children in America will start school ready to learn,” significantly increasing focus on school readiness (Kagan & Lowenstein, 2004, p. 63). Jennings (2012) explained that later, the George H.W. Bush administration began developing national academic education standards.

President Bill Clinton maintained the idea of standards but encouraged states to create their own standards and tests to assess student aptitude. George W. Bush then took the implementation of standards further by instituting *No Child Left Behind* (NCLB). NCLB emphasized test-driven accountability, which stipulated that schools and districts that did not meet intensified testing standards would be penalized for their failing status (Jennings, 2012). More recently, the Common Core Standards have been adopted by 43 states and the District of Columbia (Ujifusa, 2015), replacing individual state standards with a uniform set of expectations for student knowledge and skills in math and English Language Arts. The standards claim to be internationally benchmarked and more “focused” than previous standards, resulting in significant change from previous state curriculums (Portern, Hwang, & Yang, 2011). This shift in standards has especially affected the lower grades, as Common Core requires students to exhibit deeper understandings of concepts sooner. An article about the shifting standards in Vermont explains that:

In math, the subject material will be “pushed down” a couple of grades, so that what was learned in sixth grade might now be covered in fourth or fifth...The Common Core covers fewer math topics than the current Vermont standards, but addresses them in greater depth and with an increased focus on problem-solving and student understanding.

(Jickling, 2014)

The historical rise in academic standards - continued by the Common Core - repeatedly emphasizes children’s cognitive development. Supporters of this method assert that in order to be college and career ready, as well as remain competitive in an international market, students need to be grounded in content-centered approaches. They suggest that early learning of content provides a foundation of prior knowledge that contributes to and may even be the determining

factor in students' ability to learn new concepts. This approach relies on the scaffolding of individual pieces of information to build a "knowledge schema that enables complex understanding of the event" (Marchitello & Wilhelm, 2014, p. 4). In this model, school readiness is determined by how much students know and the cognitive skills they are able to demonstrate. One reason that forest schooling may not be seen as relevant in promoting readiness is because it is seen as developing social and emotional skills more than the cognitive development of children.

However, others argue that such a perspective hinges upon a narrow view of readiness (Zigler & Bishop-Josef, 2004). They contend that a "whole child" approach does not devalue cognitive skills, but places them among other aspects of human development, thus helping to prepare the student as a whole. Self-regulatory behaviors such as communicating wants, needs, and thoughts, curiosity, behavioral control, focus, emotional self-regulation, and socialization are all factors that contribute to a child's ability to learn (Blair, 2002; Zigler & Bishop-Josef, 2004). Those who advocate for a whole child approach believe that these components are equally as important as skills like phonics and number recognition for a student's future success.

The debate is further complicated as scholars have struggled to uniformly conceptualize or measure readiness. Crnic & Lamberty (1994) observe that "despite the best intentions of those concerned with the educational process, young children's readiness for school remains a critical yet controversial, complex, and perhaps misunderstood construct" (p. 91). Readiness can mean academic preparedness, motor development, attention, socioemotional skills, cognition, and/or social competence (Shepard & Smith, 1986; Kagan & Rigby, 2003; Raver, 2003; Webster-Stratton, 2008). Raver (2003) claims the current educational climate emphasizes academic preparedness over social or emotional competencies despite the fact that emotional development

matters in early school success. Contrastingly, Ramey and Ramey (2004) emphasize cognitive and linguistic development as imperative to school readiness, though they also included activities that supported motor, fine motor, and social and self development in the preschool program they developed for their study. Shepard & Smith (1986) found that “readiness” based on age is a relative concept and there will always be older children who are more “ready” than younger children in a classroom. They also explain that retaining children has been found to be ineffective as a way to increase school performance and that tests that claim to measure readiness are often inaccurate or obsolete by third grade. With the myriad of differing opinions and lack of conclusive scientific evidence to clarify what exactly constitutes readiness, the concept continues to evoke confusion and controversy.

Readiness in the context of forest schooling can be viewed as a range of developmental proficiencies from communicating effectively with peers to persevering through challenges. These proficiencies ultimately enable a child to learn and can be cultivated outdoors as well as indoors. As I will show, participants in this study highlighted ways they were able to access the state and national standards outdoors while also allowing children to develop confidence and social skills. The key difference for them was not necessarily a change in learning objectives but rather the educational context they used to achieve them. To help me situate this shift, I turned to sociocultural theory to better understand the potential significance of context in learning.

Sociocultural Theory: Learning as a Socially Mediated Practice

I am interested in learning how the forest school functions within a public school and how the altered educational context mediates the way students interact with their peers and teachers. In other words, one of the central assumptions in my study is that different settings

mediate how and what students learn. Grounded in the work of Russian psychologist Lev Vygotsky (1896-1934), sociocultural theory suggests that what and how we learn is intricately connected to our social relationships, cultural legacies, and historical periods. In general, the practices of forest schooling are often characterized as more spontaneous, emergent, collaborative, and informal than the teacher-governed, directed, disciplined, and formal learning processes that are stereotypically associated with public schools. Though the two are generally seen as separate, Mountain School has attempted to incorporate the informal learning practices of forest schools into the context of public education. They are simultaneously bringing some of the standards and curriculum of public education into the realm of the outdoors, thus changing the contextual norms generally found in both views of schooling.

Considering context is important to understand forest schooling from a sociocultural perspective. Throughout history humans have been inventing tools or artifacts that influence the way we live (Cole, 1996). Artifacts can be characterized as anything that has been manufactured or used by humans from laws and religion, to language and physical tools. Artifacts are then passed down generationally and accumulated, formulating the way we experience the world. In other words, the materials and ideas we are surrounded with, and the way in which we are taught to use them, make up the cultural norms we encounter and enact on a daily basis.

Schooling can be seen as an activity in which people learn to use and modify such artifacts. In a school setting, a physical artifact may be a desk, whiteboard, or a manipulative tool used to understand a math problem. Each of these objects symbolizes a certain action and students learn what is expected of them when each one is present. The tools are not just physical however, but also include intangibles like language and customs. Indoors students may be asked to sit at their desk and speak once they raise their hand and have been called on, a cultural norm

often associated with schooling. However, often students are allowed to move and talk freely outdoors because the walls of the classroom do not confine their actions, amplifying their movements or sounds into chaotic disruptions. The outdoor environment is seen as welcoming these activities because the space itself is large, dynamic, and active. Erin Kenny, founder of one of the first forest schools established in the United States, the Cedersong Forest School, states that “children cannot bounce off the walls if we take away the walls” (Kenny, 2011).

The student and his/her context are not distinct entities, but are instead actively intertwined through their relationship to one another. Within a sociocultural framework, learning can be seen as more than an individual’s discovery of knowledge or a passive receiving of information. Instead, learning is seen as an active, social and transformative process rather than the mere acquisition of content. The way students interact and communicate with each other and their teachers, contributes to their cognitive development (Mooney, 2013). In a school, adults arrange children’s environments to “optimize their development according to existing norms” (Cole, 1996, p. 111), and therefore shape children’s actions and understandings. In the shift from an indoor to an outdoor environment, a shift that presents different artifacts both physically and socially, the teacher is allowing for the development of norms that break free of the popular form of modern schooling. This modification offers the potential to provide different educational outcomes for her students. Sociocultural theory provides me with a heightened sensitivity to the ways a forest setting might mediate learning in ways that are different from an indoor school setting. By utilizing sociocultural theory in this study, I have paid attention to how teachers and students’ educational experiences are mediated through the artifacts that they utilize outdoors, and how those experiences differ as a result from those indoors.

It is important to consider these differences because the current educational climate in the United States tends to focus on standardization and content-centered ways of interpreting school readiness and later the success of a child and school. Public schools adopting the forest school approach present an alternative to the overly narrow and restrictive approach to readiness and learning that is presented by the standards-based movement. I experienced this narrowness and restrictiveness firsthand as a teacher working in a high-poverty school. Teachers in my school were not given the opportunity to consider how we might incorporate the outdoors as a method to provide young children a more “holistic” and “well-rounded” education that develops their bodies, confidence, and social skills.

CHAPTER 3: METHODOLOGY AND METHODS

In this study, I describe an administrator's and four teachers' perspectives of how and why a public elementary school in Vermont uses forest schooling in their kindergarten classroom. The aim of the investigation was to better understand how the practices found in forest schools can be utilized in public school settings. I chose to conduct an intrinsic, descriptive case study of this classroom to learn about the conditions that allow the program to exist, as well as what the teachers and principal view as the significance of forest schooling for their public school. I also conducted thematic analysis of data gathered during my investigation of the case to pinpoint patterns of meaning that may be useful to other practitioners. I explored the kindergarten classroom's forest school program by observing the site on one of their forest school days and by conducting semi-structured interviews with the school principal and the four teachers that have been associated with the kindergarten classroom. I took note of:

- How the space was arranged
- How teachers invited students to use the forest
- What students and teachers were doing in the space
- What resources and manipulatives were accessed
- How students were interacting with their peers and the adults in the space

I considered these factors to gain a better understanding of the educational context that emerged from the outdoor environment and how the context affected student and teacher actions.

I also investigated the origins of the forest school program to gain insight into what conditions allowed it to exist within a public school setting. I considered what factors inspired its beginning and what resources were needed to launch and sustain its presence in the school. I was interested in why the school wanted to pursue this kind of program and why it has continued.

Further, I wanted to better understand how this school was able to utilize forest school practices - such as spending much of the day in the woods and allowing for free play during the school day - while still operating within the context of a public school curriculum, standards, and expectations.

Theoretical Framework: Social Constructivism

This research is grounded in a social constructivist framework. I approached this Vermont public school as a research site with the belief that we create and engage with meaning based on our histories, lived experience, and social interactions. Creswell (2013) explains that in studies using social constructivism, “reality is co-constructed between the researcher and the researched and shaped by individual experiences” (p 36). I focused on the participants’ views of the case, or how they described how forest schooling began at their school, what they do during the weekly forest school day, and the significance of the forest school practice to them. My background as a teacher in a public school influenced my construction of these meanings, and participants in the research shared their perspectives based partly on their understanding of my background and interests. For example, the teachers may have discussed the successes of the program more readily than the challenges because they were trying to justify their use of forest schooling or support my desire to find a way to merge the practices of alternative and public schools. Additionally, by sharing my experience and discussing components of my previous research, I may have demonstrated to participants that I was “on their side,” thus prompting them to respond to questions in a way that supported my beliefs and values.

Further, because I was frustrated with the educational climate I taught in and am a supporter of experience based learning; I had to deal with the challenge of maintaining critical distance throughout my analysis. In order to establish distance, I did the first round of analysis

and then set the data aside for a few weeks. I then created a list of my values and beliefs regarding schooling. Later, I reread my analysis with the list in mind, attempting to recognize biases and looking for things that were overlooked or misrepresented. Another consideration when analyzing data was the difference between evaluation and evidence. For example, while I was at Mountain School for an observation, the forest school specialist led an activity in which he prompted students to think about how forest kindergarten has “helped or changed their life.” Each student was directed to draw a picture that coincided with his or her answer and the drawings and responses were collected and combined to create an end-of-year memory book. Rather than accept the students’ responses as a positive evaluation of the program, as a researcher I had to contextualize their responses and consider them in relation to the prompt and activity the students were participating in. This kind of careful consideration of data helped me maintain validity throughout the research process.

Case Study Design

Intrinsic Case Study

The once a week forest school program taking place in a Vermont kindergarten classroom from its creation in 2013 to the end of the 2014-2015 school year is my research focus. I chose a qualitative research model because I wanted to better understand the meaning of forest schooling within this school. Through a case study approach in particular, I could focus on this phenomenon while it took place in its natural context, bounded by space and time (Hancock & Algozzine, 2011). I wanted to explore the particularity of this case, such as their regular use of outdoor space and inclusion of significant time for free play and exploration within the public school day. My research question is consistent with a case study methodological approach

because it is concerned with questions like “how” and “why” (Baxter & Jack, 2008). My research question is: How do the principal and teachers of a Vermont school describe using forest schooling in their kindergarten classroom? How do they describe its purpose?

This research more specifically fits within the framework of an intrinsic case study. Stake (1994) explains that an intrinsic case study is one that is carried out because the case itself is of interest. My goal was to examine the specific phenomenon present in the site and to better understand the case itself, rather than using it as an instrument to understand a larger, generalizable issue. In addition to Stake’s classification, Creswell (2013) explains that an intrinsic case study is one “that has unusual interest in and of itself and needs to be described and detailed” (p. 98). The site used in this study was pre-selected because it practices a unique method of schooling, therefore giving it inherent value. Further, according to Yin (2009) this study would also be categorized as descriptive as my aim is to provide a description of the forest school program in order to inform further research and practice. Descriptive case studies, as the name suggests, are conducted with the purpose of presenting a “complete description of a phenomenon within its context” (Hancock & Algozzine, 2011, p. 37). Thematic analysis was then used to explore patterns of meaning that emerged from the data and description. The combination of description, and analysis helped to deeply investigate and represent the specific case of Mountain School’s kindergarten classroom.

Despite my desire to offer recommendations that might be successful in any public school, I am not suggesting that generalizations can be constructed based on one case study. This study does not prove the success of this forest schooling method or present a fail-proof guide for how to begin a forest school program in a school. However, my aim is to provide a detailed description and enough context to allow readers to develop naturalistic generalizations, or those

developed as a product of experience (Stake, 1995). By providing a full account of the school's forest school practices, readers may be able to vicariously experience the case and determine how their own context is similar or different from it. A comparison of their experience against the information presented in this study could provide the opportunity to develop a deeper understanding of the possibilities of forest schooling and/or adapt methods from the study in ways that are suited for their practice. Through a detailed account of this classroom, as well as an analysis that teases out the intricacies of meaning woven throughout the participants' accounts, my study has the potential to inform other individuals or schools who are interested in investigating forest schooling and public schools.

In qualitative research, triangulation is used to maintain the accuracy and internal validity of a study (Merriam & Tisdell, 2014). This study was triangulated through the use of multiple methods and sources of data collection (Flick, 2009). Methods include the way in which data is gathered, while using multiple sources of data means using the same method with a number of subjects. I conducted interviews with five participants about the same phenomenon. By asking each participant similar questions, I was able to compare their answers for consistency or discrepancies in their accounts of the program. I also observed a forest school day to enhance the "scope, density, and clarity" of my analysis of the forest school program at Mountain School (LeCompte & Preissle, 1993, p. 48). The combination of interviews and observation allowed me to make use of multiple perceptions (Stake, 1994). Participant interviews helped to clarify or correct assumptions and biases that may have formed from my observation. And the observation helped me cross-check descriptions of phenomenon provided by participants in their accounts of the forest school day such as schedules norms or regular activities.

Site Selection

To study forest schooling in a public school context, I used a purposive sampling approach by first establishing criteria essential to my research interests and then selecting a site that met those criteria (LeCompte & Preissle, 1993). It was important to me that the school was public, and preferable that it be a district zoned public school rather than a charter or magnet school. These criteria matter because I wanted to understand how a school who served a miscellaneous student population and was held accountable to state and national educational systems could incorporate methods that were different than the prescribed curricula I observed and experienced while teaching. I also wanted to find a site that used forest schooling practices regularly. I was interested in attributes such as spending long periods of time outdoors in various kinds of weather, allowing time for outdoor exploration and play, encouraging manageable risk, and/or utilizing an emergent curriculum outdoors. These characteristics are common in forest schooling and contrast the education as testing methods that I saw as characteristic of my school. Specifically, I was interested in studying a school that took children outdoors for at least a half day, once a week. Upon finding a site, I needed to make sure that there would be participants willing to take part in the study. Ideally I would be able to interview participants and observe the site in person. In summary, my primary sampling criteria included:

- a public school regularly utilizing forest school practices
- willingness of staff and/or teachers to participate in this research

My secondary concerns included:

- district zoned public school
- half day or more outdoors per week
- the possibility to observe and interview in person.

I initially became interested in this particular school site, which I will call Mountain School, after reading an article that was featured on a website devoted to nature opportunities in early childhood education. The article includes a section on forest schools in the United States and features the chosen school site as an example of a public school integrating forest schooling into their curriculum. Upon initial investigation into the site and a correspondence to gauge interest in the study (Appendix A), it was clear that this site fit both the primary and secondary criteria. Although since the study began I have discovered another public school implementing forest schooling, I did not know about it at the onset of the research, thus making Mountain School the site of my study.

Mountain School is a public school located in Vermont. One of its kindergarten classrooms goes outside and into the woods for most of one full school day each week. The teachers utilize components of forest schooling such as sit spots, free play, and a rain or shine mentality when outdoors. The school did not alter its procedures about classroom placement based on the forest school program, meaning the classroom is made up of a random sampling of kindergarten students from the school's enrollment zone. All of the teachers that have worked with the classroom agreed to participate in the study. The principal who allowed the institution of the program into the kindergarten's curriculum also agreed to be interviewed.

Participants

Participants for the study were selected based on their direct involvement in the implementation or use of forest schooling at the site, as well as their availability and interest in this research. More specifically, I chose to reach out to the teachers associated with the classroom since its adoption of forest school practices. I also invited the principal of the school who agreed to allow the teachers to run the program to participate in this research. I utilized a

snowball method to locate potential participants. I initially contacted one participant based on contact information provided in the article featuring the school site. This participant, the classroom teacher at the time, then suggested others who were connected to the forest schooling program.

Though I considered expanding the participant pool to parents and students of the program, I chose to exclude them from this study due to time limitations. Additionally, this study does not include the perspectives of other school or community members such as other teachers at the school, classroom aids, or volunteers who have worked with the program. This exclusion limits the perspectives presented in the study; however my approach also provides a focused look at the program according to those who began or oversee it. Future research could attempt to include students and parents, as well as other school and community members to investigate the case from other perspectives.

I initially contacted the founding classroom teacher to inquire about the possibility of a case study of the forest school program at Mountain School and for suggestions of other participants (Appendix B). I then contacted all suggested participants through email to gauge interest in the study (Appendix C). The participants who were invited to join the study included two teachers currently working with the forest schooling program, two teachers who initiated the inclusion of forest schooling into the kindergarten curriculum, and the principal of the school. They are:

- **Alexa:** Alexa is the classroom teacher who founded the forest school program at Mountain School in 2013. She taught kindergarten for six years before going on maternity leave in October of 2014. Before establishing the forest school program, Alexa began gradually taking her students outside during the school day. She completed a yearlong professional

development program with the Appalachian Trail Conservancy through which she created a program called Kinder Guides. They recruited local retirees to volunteer and buddy with students in the kindergarten class four times a year. The students and volunteers would go outside to do activities before doing a mile long hike along the Appalachian Trail in the spring. Alexa ran this program for three years prior to getting the idea to take students outside for a full academic day once a week. She stated that she was inspired to start the current forest school program based on personal experiences with nature. She also cited her fifth grade teacher taking their class hiking and camping and the documentary *School's Out* about a forest school in Switzerland as influences.

- **Emily:** Emily interned with Alexa during her teacher training. After having her daughter, Emily took time off so she never took a classroom teaching position. Alexa reached out to her when they were thinking about starting the forest school program to see if Emily would be interested in working as the forest school specialist once a week. Emily said it was perfect timing and that she liked the idea. Emily and Alexa then began working on preparations for the coming year. Emily stated that she was raised in a suburb of New York City, frequenting the mall and local pool more than the forest. But since then, she noted, she has become an “outdoorsy” person. Emily left the forest school program at Mountain School in October of 2014 to go on maternity leave, but would like to continue working with public schools that want to do forest school programs. She stated that she loved being the forest specialist but that she would eventually like to be a full time public school teacher who does something like Forest Friday, rather than being the person who is only there once a week.
- **David:** David is a retired teacher who took over the forest school specialist position when Emily went on maternity leave. He was familiar with forest schooling prior to taking the

position and has a long history with outdoor education. He stated that he has always done forest related and outdoor activities. He runs after-school gardening programs at multiple schools, organizes a ski club, and works at another school in the area managing a lot of their outdoor programming. He started an outdoor amphitheater space and worked on some of the trails when he had been a teacher at Mountain School, prior to retiring.

- **Claire:** Claire took the teaching position at Mountain School soon after her graduation from a teacher education program. It is her first position as a full-time teacher. Though the position was only supposed to be temporary, Alexa decided to extend her maternity leave, making the position last the school year. Claire had experience with outdoor education from working at the Vermont Institute of Natural Science summer day camp program. But she did not know much about the forest school program at Mountain School when she was hired.
- **Jack:** Jack was the principal at Mountain School at the time of the study. He had worked there for six years before the forest program began. He completed a yearlong professional development program with the Appalachian Trail Conservancy and worked with the Vermont Institute of Natural Science to pilot a program called Naturalist in Residence to provide a nature specialist in the school. He ran a program at the school called Wolf on the Prowl whereby, every other week, fourth and fifth graders would do hikes in the area, learn camping skills, build fires, make forts, and create outdoor crafts. Under his leadership, the school acquired grants to develop trails including stone steps and a bridge. After finding out about the documentary *School's Out* from a substitute teacher in the area, he decided to offer a showing to his staff. He stated that he supports teachers following their passions and trying something new, and that the outdoors is something that makes him feel happier and healthier.

All of the invited participants agreed to participate and were given informed consent forms (Appendix D) to review before the onset of the study. The Belmont Report (1979) determined that all research involving human subjects must uphold ethical principles including justice, beneficence, and respect for others. In accordance with the guidelines presented in the report, ethical considerations were practiced in this study. Participant and school names, along with the site location, were kept confidential with the use of pseudonyms throughout the research process and dissemination of research findings. Participants were provided informed consent forms to examine and sign both prior to and at the time of their interview. The form explained the intent of the research project, the participants' right to confidentiality, the method of data collection, and that they could withdraw at any time without question. Each participant signed the consent form at the time of being interviewed.

Data Collection

I collected data through both semi-structured interviewing and participant observation. I conducted one semi-structured interview that lasted between thirty and sixty minutes with each participant. Semi-structured interviews are useful when working under a social constructivist framework. Social constructivism assumes that participants' attitudes are not predetermined. Using a semi-structured interview approach allows their perceptions to emerge throughout the interview process as participant responses help to shape the direction of the interview. Fylan (2005) explains that semi-structured interviews are "simply conversations in which you know what you want to find out about" (p. 65). Going into the interviews I knew that I wanted to ascertain the principal's and teachers' perception of how and why the forest school program exists within Mountain school. A semi-structured approach allowed me to align the conversation

with my research questions while also allowing for participants to include insights and aspects of the program that were important to them. I went in to each interview with general questions about the classroom's approach to forest schooling. However, some questions did not apply to some participants, and participants' answers led to different follow-up questions. I asked participants questions such as:

- What inspired you to use forest schooling in the curriculum of your school?
- What were your aims in using forest school practices?
- What made forest schooling in the kindergarten curriculum possible for your school?
- Can you describe what a typical day looks like in your forest program?
- How did/does adopting forest schooling influence your teaching?
- What is your view of the significance for students?
- Why did/does forest schooling matter for your students?

I was interested in responses that spoke to how the forest school program began, how it is utilized within the context of the public school, and why they found it significant for themselves and their students. Interviews were audio recorded with permission from participants. Following the interviews, I transcribed them in their entirety using F5 software. I took notes during interviews in case the recording software failed and I sometimes noted the body language and gestures of participants to reference when transcribing interviews. Additionally, I wrote a reflection on each interview directly after its completion. The reflection included my initial thoughts on what the participant had emphasized, any new information that may have emerged, and connections to other data I had collected.

In addition to completing interviews with participants, I observed the site for one full forest school day. The observation was important because it gave me the opportunity to collect

contextual data I could not collect from interviews alone. Through observation I was able to better understand the school environment and student and teacher actions on forest school days. It also provided me with contextual references to specific places or activities that participants cited throughout their interviews. During the observation I sometimes stood back and watched, while at other times I engaged with students and participated in activities. This method allowed me to examine the forest school day from multiple perspectives. While I was there I took note of the composition of the outdoor space, how it was being utilized, what both the teachers and students were doing in the space, and what kind of materials were being used and for what. The day I observed was the class's last forest school day for the 2014-2015 school year. I took field notes throughout the day and typed a full narrative that evening to ensure that the information was still fresh in my mind. I also took photos of the site throughout the day to reference when describing the space and activities that occurred.

Data Analysis

Through interviews, all four of the teachers - the two who began the program and the two who have taken it over in their absence - described a typical forest school day. The schedule was consistent through each of their narratives. The combination of their accounts, paired with my observation of the program, allowed me to construct a comprehensive picture of how this classroom enacts forest school practices each week.

Throughout the interview and observation process, I printed transcripts and read and re-read each one, underlining what I viewed as key passages based on my research questions. I took notes in the margins to begin to identify patterns that were present in the data. I then began to make a list of initial codes based on my reading and re-reading of the data. For example, I

highlighted each instance where the teachers and principal talked about using core standards in the forest school program as one code, and places where they referenced manipulatives students used in the forest as another.

I uploaded the transcripts into the program MAXQDA as a way to organize and visualize this coding system. I read through each interview multiple times, highlighting codes that appeared in the text and adding any new codes that emerged as I read. I used MAXQDA to expedite data coding and retrieval. I then began to compare the codes to determine how they might be related while deepening my understanding of how and why this public school adopted a forest schooling approach. I used memos to begin to establish relationships between the codes and compare data across interviews. I then reviewed my previous notes in addition to the coded passages in MAXQDA and collapsed codes based on connections in the data as they related to my research question.

I created a Word document where I wrote a paragraph that defined and redefined each code into categories as I considered passages retrieved from the transcripts. I combined these categories within four overarching themes which are: The Forest School Day at Mountain School, A Flexible Approach to Forest Schooling, Forest School Without a Forest?, and Something for Every Kid: Differentiation and Development in Forest Schooling. Each theme is presented in depth in Chapter 4 of this document.

Limitations

Though I attempted to provide a comprehensive look at the way this school is using a forest school approach in their kindergarten classroom, there were various limitations to the study. Interviews were limited to the teachers, forest school specialist, and principal directly

connected to the classroom. As they are the ones who began or maintain the forest school program, their views of its significance may be biased toward positive outcomes. Other members of the school community were not included, which limited my ability to gather outside perspectives of the program's significance in the broader context of the school community. Further, parent and student perspectives are missing. This exclusion leaves out the perception of those affected by the forest school day's implementation, restricting my understanding of its influence. For example, while the teachers and principal often mentioned student happiness as a result of the program, I had no way to confirm if their perception was an accurate representation of how the students actually felt about the program.

Time was another limiting factor as I was only able to complete one observation of the forest school day. Because the program changes with the seasons, weather, and other outside factors, I would have been able to get a more complete picture had I been able to observe the program over a longer period of time. Additionally, I observed the classroom during a forest school day, but did not observe on an "indoor" day. This limited me to describing the forest day without comparison to what the class did during the rest of the week. Participants referenced the indoor day during their interviews and I became interested in how the classroom shifted as a result of moving from an indoor classroom space to an outdoor forest school. Having a firsthand account of the indoor school day would have been useful in my understanding of how the class used that space in a similar or different way than they used the outdoor classroom spaces. Instead, I was limited to "seeing" and understanding the indoor classroom time through the accounts of my participants.

Summary

By using an intrinsic case-study approach, I was able to understand how the practices found in forest schools can be utilized within Mountain School. Because the forest school program within Mountain School is unique, the case itself is of interest. This research is grounded in social constructivism. It relies on the participants' views of the case as well as my interpretation and observation of the program, which is influenced by my experiences as a public school teacher. Findings are presented through the themes that emerged during the data collection and analysis process. A vivid description of the forest school program allows readers to vicariously experience the case and formulate naturalistic generalizations based on their own experience. While thematic analysis subsequently explores patterns of meaning found in the description and data, and allows for a deeper understanding of the phenomenon.

CHAPTER 4: FINDINGS

Introduction

A major component in the findings of this study is a description of the forest school day itself. The description helps foster a better understanding of the context of the classroom and provides an account of how the teachers and students are enacting forest school. An account of the day I observed, supported by the teachers' descriptions of a typical forest school day with their classroom, also helps to build a foundation for understanding the thematic analysis that follows. Throughout the observation and interviews I paid close attention to how the classroom and outdoor spaces were being used, what adults and students were doing there, and what kinds of materials or resources they were using. Beyond the description of the day, three major themes emerged through the analysis of interviews and observation. Each theme represents a grouping of codes that were revealed through careful reading and analysis of the data. These groupings coincide with my research question and help present a well-rounded look at what allowed the forest school program at Mountain School to emerge and what motivates the teachers and principal to continue it.

The Forest School Day at Mountain School

Background

Mountain School is one of three public elementary schools located in its district in Vermont, and is nestled in the rolling hills of the state's Green Mountains. The school is the only building on the winding, rural road where it stands. It is made of brick, with the exception of a wooden entrance, and is flanked by a school garden on one side and playground on the other. The rest of the expanse of space surrounding the school is forest. At the far end of the school lies

a kindergarten classroom. At first glance, the room looks like a multitude of other kindergarten classrooms. It has small tables covered with name tracing worksheets encased in plastic bags for letter practice, a meeting space on the carpet, a word wall, job board, boxes of manipulatives, a calendar, number posters, and a wall of cubbies labeled with student names. The only thing that suggests that something different may go on here is the row of yellow and red rain pants hanging below the set of cubbies and two 18-gallon tubs labeled “Forest Mondays.” The classroom follows a conventional indoor kindergarten curriculum based on Common Core Standards and Vermont State Standards four days a week, while on Mondays (previously Fridays) they go outdoors to engage in practices typically found in forest schools.

Despite its short history, the forest school program has already undergone subtle shifts due to a change in teachers. A little over a year after its introduction, the two main program organizers - the classroom teacher and forest school specialist - both took maternity leave, transferring the program to their replacements. The new teachers have continued the program with only slight changes that reflect their different teaching styles and personalities.

The forest school program follows a schedule that includes reflection, play, structured activities, and meals. These activities happen in a similar order each week. However, the schedule and activities are pliable enough to accommodate for weather, classroom connections, or the discoveries and interests of students.

Description

I observed the classroom on an overcast day in June, at the end of the 2014-2015 school year. The morning begins with students arriving and entering the indoor classroom. At one point the teachers wanted an outdoor meeting spot. However, they decided it was more practical to begin the day indoors because of the logistics of school arrival. Students arrive over the span of a

half hour and teachers and students need to adapt to the unpredictable weather, for example, by preparing winter or rain gear. The teachers have options for students as they arrive. They can look at the book *Naturally Curious*, a regional month-by-month field guide, with the forest school specialist, or they can create a forest school plan. The forest school plan is an illustration that describes what they want to learn or do in the forest that day. Once they have completed the drawing, they discuss their plan with the classroom teacher who helps them construct writing to annotate their illustration.

Students move freely around the classroom during this morning ritual. Some students take the name tracing activity from their table and wash the bag so they can resume practice of their letters. Others take bags of playdough from the shelf and begin to construct various sculptural pieces. Another group works on a reflection of their time in forest school, constructing a sentence and illustration that represent why forest school has been important to them. Students discuss with other visitors (there has been an increase in visitors to the classroom since the school was featured on NPR in May, 2015) what they have seen in the forest. One boy offers, “I’ve seen a snake,” another says “I’ve seen something green,” still another explains “the zip line won’t break even if heavy people go on it.”

“Ya! Like a giant could go on it!” adds his neighbor.

Students continue to talk freely, the volume ebbing and flowing as excitement over different topics prompts more voices to join the conversation or as students become absorbed in activities and fall silent.

I notice a sign on the wall reads “Inquiry Corner,” with the sentence starters “I see...” “I think...” and “I wonder...” displayed below. One student sits to the side, at his own desk, with an aide. As the classroom is inclusive, he too gets ready for the forest, but has one-on-one

attention. His aide explains to him that there will be visitors and more people in forest kindergarten that day because the other kindergarten class will be joining them. The boy and his aide review the day's schedule before he starts to play with putty and a Lego man. Other students continue their independent activities.

Once all students have arrived, the class begins to prepare for the day ahead. Students begin pulling on the colorful rain pants they will need in order to combat the day's weather forecast. Both the classroom teacher and an aide help students with stubborn buckles, snaps, and laces. They gather the sack lunches from the cafeteria, as well as packed lunches from home, and place both in a box. The class makes a trip to the bathroom and has a short morning meeting where they discuss what the weather will be like and any similarities or differences between their forest school plans. Once students have successfully put on any other necessary gear, like hats and gloves, they form a wiggly line and gather supplies like buckets, water jugs, and cookery that will be used for snack time. When the supplies have been accounted for and preparation is complete, the students go out a set of double doors and into the cool mountain air.

The weather is dreary with rain in the forecast, but no one seems to notice. The class stops at the garden to look at the progress of the plants. David, the current forest school specialist, explains to the students that he has recently laid down leaves as a path and invites them to walk along it. There is asparagus growing and a bean house made of leaning sticks, propped into an A-frame that one student describes as looking like "a long house that the Indians would have lived in." As we leave the garden, it begins to sprinkle.

The students walk about thirty yards to a small, short path that leads into the forest. Immediately upon entering the wooded area there is a small "amphitheater" with rows of log benches set on a hill. The class meets here to discuss the theme for the day, do an activity, and

regroup before travelling up to the main space they use as their outdoor classroom. The teachers often begin the day with “first focus,” a moment, as Alexa put it, to connect their activities throughout the day in the forest. Themes that they have used include weather, motion, the senses, or habitats. The themes also help connect the learning that happens in the woods to prior knowledge the students have retained from the classroom. For teachers, the “focus” in “first focus” can mean the center of interest, such as “weather,” and can signify what students might pay attention to. David explained that the theme and connections can be emergent and adaptable.

We go out and pause at the theater area and have just some little theme emerge, we might have, we likely have planned it ahead but it often is pliable enough that it might emerge from just the weather.

The day I observe the theme is reflection. David informs the students that throughout the day he will be asking them questions about things they have learned in the forest so far. He begins by asking students what kind of tree is above them. Multiple students answer that it is a beech tree. He responds that they are correct and dismisses the students to continue on to the main area they use for forest schooling.

Students, teachers, and any adult volunteers that have joined the group hike up a rocky and root-filled hill. The hill has multiple trails. Some days the class takes the same trail while other days students choose their own. Kids who reach the top first gather firewood or play while they wait for the others. At the top of the hill, the trees open up to a picturesque space full of beech trees and ferns. It is filled with shelters made of logs and tarps, the beginnings of a small log cabin, a fire pit, and flat boards balanced on logs as make-shift teeter totters. There is a space labeled with a painted board that reads, “theatre.” It has benches and a rock stage with a moose antler backdrop nailed to a tree. There are student-made “animal apartments,” low structures

comprised of various sticks, and what I later learned is a student-made bathroom structure that offers privacy if someone needs to use the bucket toilet that was transported with the class that morning.

The students scatter as they approach the top of the hill and go to “sit spots” they chose at the beginning of the year. The use of sit spots, or an independent space for students to reflect, is common in forest schools. I sit on a log to take notes, but one of the students informs me I have chosen someone else’s sit spot. I then notice that there are decorated paint sticks on the trees marking each person’s chosen spot. Some students sit when they reach their sit spots, but many pick up sticks and manipulate them in various ways. They bang them together, balance on logs, stack “tree cookies” – thinly cut cross sections of tree trunks - or pace around their designated area. After five minutes the classroom teacher makes a hooting sound. Students instantly drop their sticks and become quiet. Hooting signals to students that they are to switch to a five-minute, quiet observation of their space.

During this observation, students are expected to think about what they will share during an upcoming group discussion of “what’s different.” For this discussion, students are asked to explain what has changed since the last time they were in their spot. When discussing sit spots, Claire, the classroom teacher, explained:

[Students] are able to reflect on nature around them and what they’re seeing and what they’re hearing, and really just feeling with their five senses and noticing what’s different between what they might have sensed last week versus what they’re seeing this week.

Claire’s emphasis on student reflection, “feeling with their five senses,” and noticing changes, illustrates the depth with which students are expected to immerse themselves in the space.

After their independent time is up, the class regroups around the fire pit where the teachers have built a small bonfire. The fire pit has clearly defined borders that help manage risk. The fire is contained in a circle of rocks that is also surrounded by long cut logs that make up a square around the perimeter. Three more logs are propped up by one-another and tied at the top making a kind of natural tripod above the fire that is used later in the day to cook their snack. Though students can reach the fire with sticks, they cannot get close enough for the fire to be an effective source of heat. The fire pit is surrounded by long log benches that often serve as a meeting spot. Once the class has gathered around the fire, the teacher uses techniques from the Responsive Classroom approach¹, which the classroom practices indoors as well.

Today the “what’s different” activity is led by Claire who gives a 3-2-1 countdown after which the students respond, “good morning (name of student sharing), what’s different?” The students then share their answers by saying “I noticed at my sit spot...” and then stating their observations. Answers vary but most have to do with the coming of spring or the rain. Student responses include:

- “Mushrooms were growing at my sit spot.”
- “There is more green than before.”
- “Different sticks made different sounds when I hit them together.”

¹ According to Layton (2014), Responsive Classroom is a teaching method that works to incorporate social and emotional skills into the school day. It emphasizes positive classroom relationships, a sense of community, and active and interactive learning tasks. Methods encouraged by Responsive Classroom aim to make the class community a space where students feel comfortable talking in front of groups, listening to each other, and making mistakes. One of the ways this classroom practices techniques from the Responsive Classroom approach outdoors is through the sharing of what’s different about their sit spots with their peers.

- “My sit spot was more wet.”
- “It rained at different times than last week.”
- “The big sticks that were there are gone.”
- “Sticks broke more easily and the bark came off the tree when I hit it.”

Alexa explained that this responsive greeting is the parallel to the morning meeting they do inside during the rest of the week. Sometimes the teacher or members of the class respond or ask questions, but mainly they listen as each person shares. Once each student has had a chance to respond, the class guesses the temperature for the day, a regular ritual at the end of their meeting. The teachers ask one student to read the thermometer and report it to the class.

The students disperse for free play after their meeting is complete and they have checked the weather. They are usually given about an hour of unstructured time to do whatever they wish as long as it is “nice, safe, and nearby,” according to the reminder David gives them when they depart. Nearby includes the boundaries of the home base area, a space the size of about two football fields featuring trees, a stream, rocks to climb, built structures, a zip line, and all of the plants, sticks, and dirt offered by the forest floor.

Students continue to play even as it starts to rain harder. Most do not seem to notice the rain beyond pulling hoods over their heads. One girl tells David that she forgot her hat so he offers her a towel to put on her head. Students excitedly ask if they can use the zip line, and try to convince two adults to supervise them. The zip line is one of the only free play activities that require adult supervision. It is a new addition to the space and consists of a line of wire tethered between two trees, a stopping mechanism, and a circular seat that students sit on. Students come and go, many taking a few turns then running off to do something else. A few students take turns hanging from a rope that is tied to a tree, which helps them climb up a large rock. A boy

demonstrates how he knows how to go up and down, taking little jumps backward to propel himself down the rock face. A girl takes a few attempts at getting up the rock, but her rain boots didn't have enough traction so she asks me for a boost. I lift her to where she can stand, legs horizontal against the rock, and she tells me she is good from there.

Three boys find sticks shaped like guns and travel back and forth in a small army. Another boy stacks "tree cookies" and knocks them down again. At one point I come across a boy sitting in a stream of water. He tells me he is stuck in the creek. A girl runs up the stream, sits next to him, and asks how he got stuck. He soon becomes free with help from his dad who is an adult volunteer today, and the two children run off to another part of the forest. Another student shows me a stick that she found while waiting in line for the zip line. She asks me what it looks like. I respond that it reminds me of the letter "N." She says she thinks it looks like an umbrella and holds it above my head. She decides that it would work better if we put leaves on it so she picks a fern from the ground and asks me to help her tie it to the branch.

After playing, the students reconvene around the fire pit for snack time. The snack is always something different and often includes fresh foods or foods that are cooked over the fire. In their interviews both David and Claire gave examples of the kinds of snacks the class has tried during their time in the woods. They include pickled beets, roasted asparagus, grilled cheese, popcorn, French toast, pancakes, and steak. These teachers describe the snacks as being nutritious, adventurous, intense, and fun. They encourage students to step outside of their comfort zone and try new foods or new ways of cooking the foods. Many of the snacks involve cooking over a fire, an activity that the students can choose to participate in during their free playtime. Though the snack preparations such as cutting or mixing and the fire are adult supervised, the children are often involved in the activities, risks usually not afforded them

during the indoor school day. The idea of manageable risk is important to the idea of forest schools and snack preparation is one area where this classroom fosters such risks.

The group splits into two or three sections for a more structured activity time after students have eaten. These activities are usually led by adults and vary. Sometimes the students rotate through all of them, while other times students choose from stations. Emily stated “we weren’t boxed in with doing a proper station where everyone has to sit in the same place and everyone does the station.” The stations access the curriculum, reinforce or remediate information that they are studying in class, encourage students to move on days that are cold, and are a time for adults to share knowledge with a larger group of students. When I asked Emily and Claire to describe a little bit about what the stations would consist of and what they would do there, they explained that it varied greatly each week. Usually there are two stations, one led by the classroom teacher and one led by the forest school specialist, though sometimes there will be a third station led by an adult volunteer. The stations done in the forest could be academic, practical, or both. On a cold day they might play follow the leader or go on an expedition looking for birch bark for the fire as a way to stay warm. However other days they might create math equations with sticks, make a watercolor painting using water from the stream, or have a relay race using laminated sight words the teachers have brought with them from the classroom.

The day I observe, one half of the class goes with David, the forest school specialist on a short hike to a new bridge that has been put in along the path. They identify trees as they go and pause in different places to talk about the wildlife there. The other half of the class goes with Claire, the classroom teacher, to practice adding and subtracting math equations at the theater. She has brought numbers 1-10 enclosed in plastic sandwich bags and created a plus, minus, and equals sign from sticks on the ground. The students rearrange the numbers to make a true

number sentence, checking each other's work by counting on their fingers. After about 20 minutes, the groups switch leaders and they each participate in the opposite station.

When it is time for lunch, the groups merge and students gather around a meeting place and get their sack lunches. During the cold months or if it is raining hard the class eats inside, but when the weather is warm enough for them to take their gloves off they stay outdoors. One teacher acknowledged that students could probably stay outside during lunch even in the cold if they were to build a bigger fire or use strategies like making tea or hot potatoes to warm their fingers. However, she states that it is sometimes more comfortable for the class to go inside.

After lunch, students are allowed more time to play freely. Play continues until it is time to go inside for their specials class. So, with leaves in hair, muddy hands, wet heads, and dirty feet, the students begin the trek back down the trail and out of the forest. When students get back inside, rain pants are taken off and shoes are changed or cleaned. Some students switch from boots to sequined sneakers as they transition back into their indoor space. After scrubbing traces of the forest from their hands and faces, students line up to travel to the gym for P.E.

While the students are gone, the classroom teacher uploads pictures from the day and inserts them into the classroom blog. When students get back to the classroom, they sit in a circle on the floor and reflect on what they were doing in the pictures. The teacher types as students speak, using their words to caption the photos and explain to readers what they did that day. Sometimes the students readily offer excited responses, while other times they need prompts from the teacher. Mainly it is a time for reflection and for students to voice their experiences.

By the time the class has finished the blog post there is just enough time for students to gather their things and get ready to meet parents or get on buses. At the end of the day students

are dismissed as their bus is called or their parent arrives while the teachers pack up the forest school materials for another day.

A Flexible Approach to Schooling

A key characteristic of forest schooling is a flexible approach to curriculum and instruction. The use of an emergent, interest-led curriculum and an adaptable schedule contrast the regimented and standardized, bell-to bell-structure that I experienced as an art teacher in a public school. In this study, I found that this Vermont public school attempted to adopt a flexible approach that is characteristic of forest schools. The frequency with which participants mentioned the concept of flexibility made it stand out as a central component of their program. Throughout interviews they referenced flexibility in regard to the planning and implementation of the forest school day. They suggested that flexibility might allow students to approach schooling with a broader sense of what schooling is and does, which they hoped would translate into a sense of belonging in school and/or academic success.

A Foundation of Flexibility

Participants cited flexibility as one reason the forest school program emerged in their school. When asked what made the forest school program possible, each teacher participant referenced the willingness of the administration to allow teachers to try new and different things. For example, during her interview Alexa said that normally the administration is “the main hurdle...to anything like this” but that their principal supported this initiative. In other words, the principal had a flexible outlook on schooling that prompted him to agree to allow Alexa to try something new. David agreed:

We have a principal that's obviously into the outdoors and supporting it. Upper

administration seems supportive of it; they certainly haven't put the kibash on it.

In her interview, Claire added that the principal believed the forest school was possible, and that he agreed that they should try to get a grant to fund it.

In addition to the administration having a flexible outlook on schooling, participants also mentioned the importance of teachers having an open mind and a willingness to try something new. In her interview, Emily explained that Alexa was a teacher “on the inside” who wanted to pursue forest schooling. David also expressed that the teachers’ willingness to try forest schooling was important. For the program to work, he said you need “teachers who want to do it.” Emily stated that Alexa “having an open mind” was important at the onset of the program because it allowed them to think of schooling more flexibly and implement a model that was different from the norm. She continued by discussing the significance of forest schooling for students:

I love that it's a way to arrive at school in kindergarten with just like a little more flexibility in it, like we're not going to already tell you what school is.

By implementing both an indoor and outdoor curriculum, this school is demonstrating to students that there is not just one way to learn. Emily explained that forest schooling provides students opportunities to be good at different things. With the addition of forest schooling to the school week, the focus is not just on academics, but other skills as well. Students have autonomy to choose what kinds of activities they participate in and there is time for exploration and hands-on learning. Physical strength can come in handy, social skills are important, problem solving is utilized, and students have more space and time to explore and discover their strengths and weaknesses. At the same time, they are still learning within the structure of the state and national standards that drive the public school curriculum and prepare students for the continuation of

future academic work. She believes that these varied opportunities allow students to feel more comfortable and confident in their school experience, setting up a foundation for them to feel a sense of belonging there. For her, belonging is important for students' success and happiness in the long term.

All four of the teacher participants cited the administration and teacher(s) as being important in the establishment of the program. This reason was mentioned before any other factors in discussions of what made the program possible. The frequency makes it the most consistent reason mentioned, while its prominence as the first response for every participant suggests its perceived importance. The principal and founding teacher's flexible interpretation of what school could and should be, allowed them to justify and pursue the addition of forest school practices within the context of a public school.

Finding the Balance: Development, Standards, and Technology

The founders of the program explained that they were interested in approaching schooling in new and different ways as a response to shifting public school standards and increased technological influences in students' lives. Multiple participants cited a reallocation of standards that raised the expectations for kindergarten classrooms from social development to include the academic expectations of what used to be first or second grade. When discussing what inspired her to try forest schooling with her classroom, Alexa referenced an increase in academic demands. She explained that it had affected her classroom, claiming that reading standards had increased at least once, if not twice in the six years she was teaching kindergarten. She continued:

And it's not like the kids have changed, and I mean compared to thirty years ago it's like off the charts different. It's like second grade expectations.

She stated that kindergarten used to be seen as a place to develop social skills and that kids were expected to show up and participate in pretend play. Now the expectation is that they sit still and read. She explained that there is regulation on how much of the day needs to be spent on each subject and where the content comes from. Alexa then argued that forest schooling helps give kids what they need to be “decent humans,” skills she sees as missing from the academically focused standards and regulations that often characterize schools.

Jack further suggested that the shift in standards is becoming developmentally inappropriate and that the addition of a forest school program offered a “healthier” way to educate children.

See kindergarten used to be, until not too long ago, sort of getting ready for school. You know it was, I had a principal once who said it was like basically practicing school...now kindergarten is what first grade used to be. So I don't think it's developmentally as healthy as it should be.

Though they compare kindergarten to different grade levels, the dissonance that both Alexa and Jack present between academic standards and developmental skills mirrors the discussion of readiness presented earlier. Their belief seems to be that kindergarten should be a place that sets students up for future learning. They each mention the past as an example of when kindergarten was more developmentally appropriate and seem to have a kind of nostalgia for a time when kindergarten was about “getting ready for school.” By approaching schooling flexibly, the participants were able to utilize components of forest school in an attempt to balance standardized educational initiatives and what they consider to be foundational skills for learning.

In addition to a balance between academics and developmental skills, the school was also interested in balancing the technological resources they had with the natural resources available

to them. Consistent with current trends, the amount of technology used at Mountain School has increased over the last few years. Jack explained:

When I first came here, we were getting SMART Boards in all the classes - we're a pretty well endowed school because of our numbers - and I was juxtaposing: Wow we've got these SMART Boards, and we're using these and the computer lab, and then we've got this incredible natural environment that we're not using, how do we do both?

Here Jack shows that he was excited about technology, but he also saw value in the natural environment surrounding the school. He explained that in Vermont people are supportive of outdoor activities and often encourage kids to be outside, but that it wasn't happening in many schools. He wanted to find a way to balance technological advances with outdoor time. Though it was unconventional for a public school to take kids outside for extended periods of time, he viewed it as a natural thing to do in their area. The addition of outdoor learning spaces allowed the kindergarten class to develop a flexible view of what a "classroom" can look like.

Other participants claimed that forest school practices were important to counter the increased prominence of technology in students' lives. The tone toward the amount of technology consumed by students tended to be negative. Participants valued hands-on learning and considered technology to be an opposite method. David compared virtual learning to hands on learning models in his interview. He said:

Well we're expecting kindergartners to step into virtual reality with little, "oh well this is a great school," somebody will say about some school, "because we all have iPads for every kindergartener." Ok, but maybe they need the actual blocks to move with their hands before they delve into the virtual reality. I know it's become a reality to have that

stuff, but I think that the learning community in general needs to have the discussion: So just because it's new and it's electronic how is it better? And is it better?

When debating the questions he posed, David expressed frustrations about technology not working and causing kids to wait and waste time. He then presented the comparison between being able to move virtual money on a SMART Board to moving models of money by hand when learning about currency. While not necessarily negating the need for students to learn technology, he believes that a “real world,” hands-on learning experience should come first.

Further, Alexa noted what she viewed as negative side effects to technology in children’s play. When discussing the inspiration for the forest school program she explained that she began noticing that kids were not very good at pretend play because they were deeply influenced by video games. Kids would run around the playground and say, “I’m going to play a one-player game today.” Alexa thought that kindergartners’ use of video game lingo or playing as if in a video game showed that students were not being imaginative in their own right. She used this as an example of why it was important to present and encourage other forms of play during the school day.

Though standards and technology may be necessary for students’ success later in life, the concern at Mountain School was the noticeable increase in each, especially over a short period of time. The participants viewed the flexible approach to curriculum and instruction found in forest schools to be a counterbalance to the rigor and expectations presented in standards. The school also adopted a flexible approach to what a “classroom” space can be in order to offset the prominence of technology in students’ lives.

Accessing the Curriculum in New Ways

In a forest school the lessons can change based on things that occur in the moment. Emily explained that a small student-teacher ratio allowed for a different pedagogical approach than one that could happen in a classroom with fewer adults. In the forest, they are able to utilize “teachable moments,” or unplanned events that lead to learning opportunities (Woods & Jeffrey, 1996). She compares this teaching method to lecturing, a format that is planned and is a direct transfer of the teacher’s knowledge to students. In a lecture style classroom, the teacher has prepared content that will be shared with students. Conversely, when using teachable moments, the lesson emerges and is flexible based on what occurs and what is relevant to students.

The teachable moment or emergent teaching methods used in the forest affected the way the teachers in this study viewed their practice. Three out of four teacher participants explained that their teaching methods had become more flexible as a result of the forest school program. When asked how Claire felt the forest school program had affected her teaching she responded:

I think that it made me feel like I could be more flexible. Like I didn’t need all of the tools so available to me in the classroom. I could make them in the forest. Or I could use different types that I thought would be more beneficial because they’d be more hands on for the students. I also think that it just, it made me more open minded as to the different things that I could teach in that sort of environment, that I never – I never ever – had thought before.

Claire observed increased flexibility both in her use of materials and in content outdoors to facilitate these teachable moments. In the forest she uses different materials, which she states are more “hands-on” than the tools available in the classroom. Her use of “more” and “different” in the statement seems to suggest that she feels increased freedom to practice flexibility in the

forest compared to the indoor classroom. Further, she explained that though it seems that science would be the focus of outdoor learning, she has found new ways to incorporate the core subjects into the outdoor environment. For example, she can lead students in adding and subtracting exercises using sticks or leaves; or students can practice storytelling and identifying literary elements by creating plays at the theater. She explained that this helps students make connections between their environment and subject matter, while utilizing their knowledge and skills in new and different ways.

As I observed the school site and through the accounts illustrated in interviews with participants, it was clear that this school was not trying to get rid of school standards or nationally recognized curriculums. Rather, the participants in this study were interested in accessing the curriculum more flexibly than they had before. On multiple accounts, participants cited the ability to teach core subjects outdoors. Emily, Alexa, and Claire all specifically mentioned the connection to Common Core and Vermont Standards in their interviews. Rather than reject standards in favor of completely open-ended learning, the teachers explain that the forest is an ideal space to access the standards already set by the state and national governments. The specific mention of the standards as something they are committed to demonstrate the school's continued connection to the educational system. However, Claire explained that the learning opportunities in the forest are different from the classroom learning the students participate in the rest of the week. The blend of indoor and outdoor materials, prescribed and emergent content, and the use of natural space allows the teachers to encourage students to access learning in ways that Claire describes as "new and different."

Although the forest school day includes a large amount of time for free play and environmental learning, the teachers still draw from Vermont and Common Core standards for

use during their activity stations, as well as in organic interactions with students. David gave examples as he discussed the kinds of lessons the teachers offered at the stations.

You know a lot of people ask me well "you must teach more about trees and nature" and we do, but we can teach spelling, we can teach reading, we can teach writing, math for sure. I mean Claire was doing equations with the sticks, and fact families., Today she was doing two numbers and you had to guess which operation, add or subtract from the equation. So it is true that we'll cover a lot of natural curriculum type things but it doesn't have to be that and it isn't always that.

Here David addresses the stereotype that lessons that happen in nature have to be about nature. He gives a specific example from the station Claire offered that day to concretely show that they can teach a diverse range of information and subject matter. His example demonstrates the kind of lessons that are planned to address standards in a different environment.

Additionally, Emily gave an example of an unplanned way students accessed the curriculum themselves. She detailed how the use of a local field guide at the beginning of the forest school day became a favorite activity for students. They would look at it with her before going into the woods to see what they could expect to observe during that season. She explains how this “sneaky learning” ends up fulfilling standards:

[The field guide] was a huge way to access curriculum. Like the Common Core you know, non-fiction text. And it was just so awesome to see these kids be like "let's check in the index" you know, and "what does the caption say?" That's cool stuff. And there's months in it, there's a lot of like, sneaky learning that went on while we did that.

Emily’s example shows how the program often provides opportunities for students to approach the curriculum in a non-prescribed way. She uses “sneaky learning” as a way to reference the

kind of learning that happens organically, or without direct instruction. The students were interested in the information the field guide contained because it was useful to them, so they began to internalize it. During the time with the field guide, there were no set objectives or required learning that had to take place. Instead, the learning that happened was guided by what the students discovered. This kind of emergent curriculum gave the activity a flexibility that is often absent from prescribed lessons. Further, as Emily suggests, the kinds of vocabulary or skills – in this case talking about and using the parts of a book – that are useful to them for a certain task become internalized organically as well.

Jack also highlighted the value of accessing the curriculum through a more hands on and “authentic” environment.

All these things that you do in kindergarten, sorting, and patterns and counting and observation, you know they're doing it but it's not artificial. Not that classrooms are always artificial but much more organic.

The belief was that the outdoors provided much of what was needed to reach the standards and that it was an ideal place for learning to take place because of the natural consequences, availability of manipulatives, and space. Jack’s mention of “organic” learning parallels the flexibility of the emergent curriculum in the example Emily provided above.

Though they claimed that development of the forest school program was partly due to the increase in standards, the participants’ attention to meeting them is a testament to their commitment to academics and the public school curriculum. By approaching them flexibly however, they are able to challenge the normalized methods of schooling to provide new and different educational opportunities for their students.

Forest School Without a Forest?

When asked to envision a forest school, one may conjure up images of mud splattered students running through densely wooded spaces, climbing trees, and jumping in puddles; the only shelter in sight a tarp draped over a branch or a small tool shed in the background. However, the results of this study indicate that “forest school” can be more loosely interpreted to mean different things in different spaces, and can be built up over time. While the name forest school implies a forest, the qualifying principles according to most participants in the study were regularly being outdoors and having space for students to move freely. Participants suggested that other elements can be adapted or modified depending on the space and resources a school possesses. Additionally, the forest school can gradually develop over time to create the program a teacher or other shareholder envisions.

The Physical Space

Participants regularly discussed the physical site associated with the program. The school’s forest school space is large and wooded. It includes a fire circle and small “theater” that act as gathering areas. Students helped build a bathroom structure and rain shelter out of sticks and tarps. The current forest school specialist is also guiding the construction of a small log cabin. The space is filled with plenty of trees and rocks for students to climb and explore freely and there is additional space for hikes. The forest can also be accessed from the road, which is helping in their development of a wheelchair accessible path for students with physical disabilities. Though all of the participants mentioned the space at Mountain School as something that was able to allow their program to exist in its current state, many also voiced that they believed a program like theirs could be done in other areas. In her interview Alexa stated:

I mean it's good we have a space, but you can do a lot with different kinds of spaces.

Even, there's a school in our school district, they really don't have any woods, they're in downtown, but they have a couple trees on the outside of their playground, I mean they could make a little fire circle.

Alexa acknowledges that the forest space is an asset to their program but that other spaces could be used as well. She presents an example of a school that does not have woods but envisions where they could create a fire circle to adopt an element of forest school even without the forest. Alexa implies that the development of an outdoor classroom space – in this case a fire circle – would provide a starting place for the school to enact their own version of forest schooling.

In her interview, Emily explained that the utility of the outdoor space at Mountain School has grown with the forest school program. Many of the features that are prominent now, such as the fire circle and shelters, were created as a result of the forest school program itself. Emily claimed that a major challenge is just taking kids outside in the first place. When discussing what made the program possible she added:

All that stuff over there was created as a result of the forest school program. And I think it could be done in a different space. In fact, just now when we went outside and I had the three kids, I was thinking about how the challenge is to just go outside and then I think I surprised myself with what we were able to come up with once we got out there.

Emily's explanation of the development of the space and the personal example she references about taking her and Alexa's children outside earlier that day, suggest that the program space can be developed once you start. For her, going outside is what is important, regardless of the physical space itself. She suggests that even if the area available to a school is undeveloped, once a classroom is outside, they can "come up with" things that make the space valuable.

Although Emily and Alexa are in agreement about the possibility of forest school programming in varied spaces, David presents a slightly different view, stating that he believes it would be “problematic” if a school did not have a forest. When discussing what makes the forest school program possible at Mountain School, David said:

Well of course having the outdoor space, some kind of a thing that could be like a forest or whatever. I mean, there are schools as you know that have pretty much a playground and then it's residential and there's nothing. So I imagine that's problematic, if they had to do it offsite or get a ride or something or walk to some forest that you're allowed to use.

After stating that a lack of forest would be problematic, David provides examples of what a school may have to do if the property did not include a forest. David did not expand on what kind of problems the schools would experience; however, I would speculate that the kind of off-site models he references would have logistical or financial needs that were different from the on-site program offered at Mountain School. These different challenges could be problematic compared to the ostensible ease of having a forest at the school site. Because flexibility is an integral part of forest schooling, it makes sense that the space utilized would be variable as well. However as David suggests, there may be certain requirements for the kind of space a school needs to make a program like theirs work.

The Development of a Forest Program

As Mountain School is located on roughly 15 acres of forest in a place where outdoor recreation is respected and valued, it was logical for them to create outdoor programming for their school. The forest is close and the school was already beginning to develop outdoor learning spaces. The gradual progression of these spaces and an increase in outdoor activities

offered to students at Mountain School paved the way for a forest school program to exist there. The principal described the school as developing an “outdoor ethos” over the years as they built trails, added gardens, hired a Naturalist in Residence, and offered a growing number of extracurricular outdoor programs. When I asked him how long the forest program had existed, he explained that they had been using the space previously but not for a forest school. He clarified that a student council trip required a few students to develop a service-learning project. The students were interested in “[doing] something out in the woods more” which prompted the school to develop their outdoor offerings. He continued:

What I mean by develop is we actually started building some trails, we worked with the Upper Valley Trails Alliance, we put that big bridge in, we put in some stone steps, and sort of one thing led to another...we just started getting much more of an outdoor ethos. We started a garden after school and we started just using the woods more and more.

The principal’s emphasis on what occurred before the program started suggests that the implementation of a forest school day was not a random occurrence, but aligned with the overarching culture that was emerging in the school.

Jack also cited further examples that illustrate the evolution of the physical space and the ethos or character of the school. He explained that the school built an outdoor amphitheater and operated an after school garden program. They also had an outdoor outing club called Wolf on the Prowl, which helped fourth and fifth graders learn camping and outdoor skills. The school ran a ski club, had a Girls on the Run chapter, - a national organization that promotes the development of healthy minds and bodies through physical activity - and developed B.O.M.B., which stands for Boys on Mountain Bikes, an afterschool biking club that presented a physical option for boys as well.

In addition to the outdoor programming in the school as a whole, Alexa, the kindergarten classroom teacher who began the forest school program, first took kids into the woods after taking a professional development course with the Appalachian Trail Conservancy. The course prompted her to develop a program that took the kindergarten class outside with local volunteers four times a year. The program ended in the spring with a mile hike along the Appalachian Trail. She explains that at first she was strict with the students outside, but gradually became more comfortable with allowing them freedom.

I would take kids out there and every year I got a little more comfortable. The first year I was like “stay on the trail, don’t walk here in the woods, don’t trip!” And then through having the kids on hikes, and out, and just seeing how they played when we were out there, kind of made me want to do more...but there was definitely, it wasn’t just like all of a sudden I was comfortable taking my kids outside to run around and everything. It took a while to sort of get confidence in that.

Here, Alexa pointed out that even though she regularly took her students outside, being comfortable with their actions outdoors did not come naturally. She used directive verbal examples to demonstrate the control she initially tried to maintain over their behavior, which she later contrasted with students running around. She noted that “seeing how they played...out there” made her want to “do more.” Wanting to “do more” implies that she saw value in the students’ outdoor experiences.

An example of how they could do more outdoor learning came from watching *School’s Out: Lessons From a Forest Kindergarten*, a 2013 documentary about a forest kindergarten in Langnau am Albis, Switzerland. Alexa saw the film through a screening the principal at Mountain School had put together. At the Swiss school, students aged 4-7 go into the woods

every day, regardless of the weather. The film follows the class over the course of a year. It shows them singing songs, reading stories, and building with tools. Students swing in the trees and play in the snow. They build fires to cope with cold and are even taught to whittle with knives. Alexa drew inspiration from the school and claims that it contributed to the development of the weekly forest school day the class now participates in. She said that seeing the documentary made her think more about outdoor learning and made her feel like it was “all kind of making sense.”

After viewing the film Alexa brought up the possibility of trying out a modified version of the school to Jack, the principal at the time. He was interested in the idea and approved the program without requiring endorsement from the school board. In a meeting between the two of them they decided that the kindergarten class would spend one full day per week in the forest. Alexa began applying for grants and contacted Emily, a friend and former student teacher, to see if she would like to act as the forest specialist for her classroom.

If a school community, administrator, or teacher is interested in this kind of approach it may be useful to note that this school’s program took time to emerge and that even though the teacher was interested in taking her students outdoors, it took a while for her to feel comfortable allowing them freedom and agency in an outdoor environment. These examples highlight the gradual development of the physical space, the ethos or character of the school, and the comfort level of the teacher toward outdoor learning. They demonstrate that a school should not feel pressure to develop a successful program overnight but that outdoor learning opportunities can be built over time.

Monetary Resources

Mountain School's forest school program is able to take place on the school grounds with few outside resources. The school itself has not contributed financially at all. However, they have received grant money and volunteer support in order to develop the program. Much of the money that the teachers secured for the program went in to funding the position of the forest school specialist. Alexa explained:

The first class we had seventeen students, we didn't have a full time classroom aide so to make the ratio better and to have, like I wasn't, I wasn't ready to do it on my own without support. So that's when I called in Emily and we wrote grants and funded her position one day a week.

Alexa cites the student to teacher ratio as something that played a role in their decision to fund a special position. By voicing her apprehension about beginning the program on her own "without support," Alexa implies that the program could not have existed initially without money to fund another position. The principal of Mountain School expressed a similar sentiment when discussing the funding for the program.

Me: *I saw that the kids had rain pants and things like that. Was that funded some way or did that come through school funding?*

Jack: *No the school hasn't paid. Some grants, which was another piece. We wrote some grants to hire Emily, the other woman who was working with Alexa. It does help to have, you know our kindergarten classrooms had one paraprofessional shared, and the idea of one teacher taking kids out in the woods by herself is a lot. First of all I think these little guys who need help you know, getting their shoes on need*

more than one adult anyway. So the grant was to help pay somebody to come in and help and then they also got rain clothes and boots and some other materials.

An underlying message in this excerpt from the principal is the importance of having enough adults to help out with the students in the program. The majority of his answer is devoted to the forest specialist position, with only one sentence mentioning any other use of money. His response highlights the second teacher, not the material items I mentioned, to assist with the needs of the young students.

Despite the need for a forest school specialist position at Mountain School, both of the founding teachers agreed that if a classroom already had an aide that would be willing to assist in the program, a school could get by with a very small budget. The teachers have used small amounts of money to purchase rain pants, extra hats, mittens, and boots for students who forget or can't afford them, and supplies such as a Dutch oven, rope, tarps, and water jugs. They suggest that there are many organizations willing to give grants to schools trying new things and working with the outdoors. However they also noted that it was helpful to be the first one in the area requesting money for a program of its kind. During her interview, Emily estimated the working budget for their program, citing it as an inexpensive independent school option.

I think there are so many amazing independent schools, which are great and so inspiring, and I wish more of them would trickle down or over or in or however they want to get into public school. But forest school is one of those that's not that expensive. We fundraise our total budget, which is like \$8000 or could be less than that. I think that's including startup cost and things like that.

In this excerpt Emily is advocating for forest school as a way to bring the practices of “independent schools” into a public school setting. She argues that forest school specifically is a

feasible option because it is inexpensive, implying that monetary barriers may be a reason more of the practices found in independent schools don't "trickle down" to public school settings.

Because this school has abundant natural resources on their property and had already created trails and outdoor learning spaces, they are able to run their program with little outside cost. Currently, the teachers are able to support the program independently. However relying on grants could create problems in sustainability, as teachers have to constantly apply for and win them to continue funding the forest school specialist position. Responses from participants suggest that money was necessary to allow their program to function, however funding did not seem to be at the forefront of what they believe made the program possible. In regards to both money and space, the focus remained on the contribution of teachers, in this case the added position of a forest school specialist and what he or she could help do to make the space meaningful for students.

Something for Every Kid: Differentiation and Development in Forest Schooling

Students are inherently different. They come from different places, arrive at school with varied experiences and personal histories, and have their own set of strengths and weaknesses. Often in school settings, these characteristics are used to label students and place them into categories. Because classroom teachers have to attend to so many different levels and backgrounds, this organizational system is usually intended to allow them to differentiate instruction – the act of providing modifications based on the needs of students. However, sometimes students get stuck in the category they are assigned to, unable to jump "tracks" within the educational system (Oakes, 2005). The participants of this study found that a forest school

program was one way to naturally provide differentiation, challenging students who excel in a traditional school setting, while providing different opportunities to succeed for those who do not.

Challenging Labels

Alexa offered an insightful narrative that illustrated the way the outdoor environment provided different opportunities for student success than the indoor environment. She shared:

I had a kid who was really slow at getting work done inside. He had been retained and school academics were just not his pace. But outside he would haul our sap. We had a sled and we'd tapped five trees in the spring. We'd have like five gallons of sap, which is about 40 pounds in the wet snow. And he would be like "I'm doing it myself, I can do it!" and he'd have the sled string around him and he'd be hauling this big wood sled with all this sap in it to the fire up the hill. And he could be the best at something and that was not his MO in the classroom, but it could be outside. It was really neat to have something where we could celebrate him and give him a chance to be like "oh this is what it feels like to be the hard worker." Where he was not engaged enough to do that in the classroom but to have something I could call back on: "Alright, you're writing your journal entry, pretend you're walking up the hill with your sap, give me three sentences" or whatever you know. To have something I could refer to where he'd been really successful and it was something he was really good at was really nice. I think it just touches upon such a different skill set that is so good for every kid.

In her story, Alexa describes a certain kind of student, one who was “slow at getting work done” and “not the best” at school indoors. However, she shares that outdoors he was able to find a way to be successful and even the best at something; in this case, hauling sap. She explained that she was able to refer to this success to help push him in academic endeavors later. For example, he

had used endurance to haul the sap, meaning he possessed that trait. Further, she had seen and celebrated it, making it a skill that she could reference and he could draw upon when completing things that did not come as naturally to him.

Alexa ended the story by stating that the “different skill set” that exists in the forest is “good for every kid.” Many of the participants in the study referenced various kinds of students. Through assorted accounts of how the practices of forest school could be good for “all kinds of kids” the teachers give examples of kids who do well in school, kids who ask questions, high readers, kids who need to move, kids who have been retained, kids who get right answers, and like the boy in the story, kids who are slow at getting work done. The teachers ended up mainly categorizing kids into three groups: slow learners, high achievers, and movers. Though the teachers seemed to categorize or label students this way – a practice that is characteristic of schooling - they also pushed to challenge the categories and encourage students to break free from them in the outdoor environment. For example, the boy in the story above was able to go from a “slow learner” to a “hard worker.” In this way, the forest school day allowed students to disrupt the typical way that students were seen as successful or unsuccessful and the way they fit into or discarded the labels.

One approach to casting off labels is to challenge the ways learning and success are perceived. The change in environment and physical nature of many of the activities the students engaged in outside provided different students with opportunities to thrive while simultaneously challenging some students who were used to doing well. Emily stated that the forest school day can be good for students who are high achievers by showing them that they are not always the best at something.

Like if they are inside and they're used to slaying it all the time like, right answer, right answer, but they go outside, but then that kid who like cannot possibly sit still inside and is constantly getting yelled at is like, amazing at building forts, that kid is now the leader and this other kid is like "oh," which I think is so more true to life. It's so important to learn that lesson that you're not always going to be the smartest kid and the leader.

Here Emily demonstrated another disruption of labels and a shift in students' perceptions of success. She felt it was important for students to figure out that people have different sets of knowledge and skills and that it is ok to take a secondary role sometimes to respect another person's strengths. Indoors, students who were perceived as troublemakers could find industrious uses – like fort building - for their energy outdoors. Contrastingly, students who were used to academic success and leadership might take a secondary position outdoors, shifting both the label of the “troublemaker” and the “leader.”

She also touched upon the way the outdoor environment changed the power dynamic between students and their teachers. In her example, the student who could not sit still in the classroom was “constantly getting yelled at.” In the outdoor environment however, the power dynamic changed as teachers allowed and encouraged students to explore and move independently. She seems to suggest that the classroom can be a site of power struggle, whereas the outdoor environment allowed teachers to change their relationship with students who may find it difficult to adhere to the rules and hierarchy of power found in the indoor classroom.

Claire also highlighted a change in power dynamics by explaining that now more than ever students are expected to sit still - often “criss-cross apple sauce” with their hands in their lap - to listen and engage in lessons indoors. Teachers are expected to enforce this kind of rigid posture to demonstrate good classroom management and create an environment that appears to

be focused on learning. However, she explained that for some students this forced stillness hinders their focus, rather than helps them. Outdoors, she claimed that students have the ability to “move around freely” and “fidget.” In their outdoor space, she did not have to enforce the strict body regulations that were necessary in their smaller indoor classroom. She attributed the difference to the larger, more dynamic environment and explained that outdoors she was able to see that students could move freely and still remain focused. She explained, “you don’t realize that until you’re in that setting where everything is moving around you.” Alexa added that for the kids who are movers or have a “harder time sitting still” the outdoors “is just this place where they can feel like they are good at something and valued.”

All of these different kinds of students require different teaching and learning practices to find the success and value that Alexa, Emily, and Claire are talking about. A buzzword often heard in the educational realm is differentiation, or the ability to teach and provide modifications to different kinds of students. Beyond the switch from academic to physical challenges, Emily claimed that the outdoors helps with differentiating learning due to the natural diversity and scaffolded levels of understanding that can be found outdoors. She explained:

If you’re teaching colors there’s something for those kids who are like “this is red” like “this is blue” and then there’s something for the kids who are like “why is this green?” like “why are leaves green?” you know so, for the kids who need remediation but also for the kids who are advanced.

In this way, students are being met at their level of understanding and challenged to grow from there. Emily demonstrated that simply by switching questions or tasks, all students can learn together from their own comfort zones. She later explained that often kids who are advanced get

left alone because they are already doing well. However, the outdoor learning environment offers challenges to them and allows them to push the boundaries of what they are learning in school.

The participants seemed to believe the combination of differentiation, challenge, and disruption that is able to occur in the outdoor environment encourages growth and belonging. Students are able to grow both academically and developmentally through differentiated learning opportunities and challenges that are different than those found indoors. The power dynamic between the teacher and students that often develops in the classroom is altered and challenged outdoors. While at the same time, students who struggle to find success in the classroom can be celebrated outdoors, helping them to develop a sense of belonging that participants believe may deter them from the path of apathy or delinquency. Participants seemed to suggest that each of these things could lead to a greater chance for student success both in and out of school.

The Development of Toughness and Grit

Multiple participants valued being able to work through difficult situations and displaying toughness and grit as an important trait for students to develop. The tone suggested that toughness and grit would transfer into perseverance that could be useful in other aspects of the children's lives as well. Claire, being new to the program, didn't realize she would need to endure the winter outdoors. When talking about her experience with the program, she explained the value of perseverance for herself and students alike.

I hadn't thought that I had to go out in the winter and that added a totally new layer to the forest program because it's difficult to stay out there. But I think that that's also important for the kids as well as the adults, because it's out of our comfort zone. But it's also something to try and you can still see things, and learn things in the winter too.

Claire acknowledged the difficulties associated with operating a program in a place where winter is harsh. For her, the indoor classroom was the “comfort zone” and the outdoor space offered challenges and experiences that went beyond what they could do there. Further, the winter outdoors presented additional adversity that students and teachers had to confront. However, she explained that enduring the season allows you to see new things that you would otherwise miss. She later talked about how students often did not notice the cold as much because they would be running around, creating heat for themselves without even thinking about the fact that they were enduring something the adults found difficult.

When discussing the aims and goals of the forest school program at their school, Alexa mentioned many things including a sense of belonging and connection to place. She said:

A sense of belonging was big when we were starting this...that they can carry with them always that they're a Vermonter; they can play in the snow for a long time and be tough you know?

She explained that she hoped that students would have a place that they felt familiar with. A part of their environment includes inclement weather, and a part of the forest school program includes enduring the weather to a certain extent. She attributes toughness to playing in the snow for a long time and argued that the toughness that came from that contributed to a sense of belonging in the Vermont environment.

Emily also valued toughness as a result of the program. When asked what the significance of forest schooling is for the students Emily responded:

I think the number one thing is the sense of grit and toughness. I think a lot of them came away with this, I hope, sense of accomplishment that they made it through winter, went out, they're brave, they're tough, they're more physically capable than they were before.

Yeah, and a sense of self-confidence connected with that that will serve them academically.

For her, toughness equated to self-confidence, a trait that would support them in future academic endeavors. The fact that she specifically notes that it would “serve them academically” is consistent with the participants’ previous sentiments about the forest schools’ aims being linked to academic standards. Even though the program is outdoors and uses different methods than the indoor classroom, the focus remains on providing a quality educational program for students that will allow them to succeed throughout their educational careers.

For these participants, toughness seems to be a physical trait that stems from enduring difficult situations and climates. However in the long run, they are not interested in how long a student can stay outdoors and whether that transfers to them being able to be outside for long periods of time as an adult. Instead, the toughness that comes from these physical difficulties is seen as providing a catalyst for mental endurance and confidence in oneself. It is these mental traits that participants perceived as being valuable to students. Though it is possible that students also develop toughness indoors as they work through challenging learning tasks, it seems that the challenges students endure outdoors may be more visible or significant to these teachers.

Student Happiness and Wellbeing

According to participants, the forest school program at Mountain School has helped students feel happy and healthy while still pushing them to take risks and step outside of their comfort zones. The school used their resources, both the physical landscape and the passions of their teachers to shape the program into what it is today. For Jack this kind of schooling makes sense because he sees it as healthy for kids. He explained that the school is not only focused on

test scores, but is also interested in the healthy development of its students. For him the forest school program models that. He provided an example to illustrate the point:

You know some kids are five years old, they're just not ready to read. And I tell parents that at open house. You know if you have more than one kid you'll know that they probably learned how to walk at different ages. They learned how to talk, and they learned how to be potty trained, and to expect because they're five they're all going to read, and those kids who can't read, we retain a lot of them now because of the [educational] system. We don't want to put them in first grade where the expectations are even higher. So this I think, is just sort of a healthier way to raise kids right?

For Jack, being in line with standards and the national curriculum is important, but not more important than raising healthy kids. To him, the system and the idea of readiness are sometimes incongruent with the natural rate at which students develop. Schools are forced to retain students who aren't ready because they don't fit into the educational system that is in place. Contrastingly, he values experimentation within education and hopes that their program can show that there is not just one way to do things; schools and their students don't have to fit within rigid boundaries in order to succeed.

Further, the teachers and principal of Mountain School viewed forest school as something that the students enjoyed doing. I did not have the opportunity to formally interview students or parents directly so all of the statements regarding their like or support of the program are taken from the perspective of the principal and teachers who participated in the study. When asked why forest schooling mattered and why she had previously stated that she hoped it continued, Claire explained:

Well seeing how much the students love it. I mean, it's a Monday, it's hard to get up. I mean, even as a teacher you know it's the Monday Blues. You come in to school and it's like "oh great another school day, another school week" but it's something to look forward to and I think that's so positive for students, especially so young, to look forward to coming to school.

Claire explains that having the forest school day on Monday gives her something to look forward to when coming back at the beginning of the week and speculates that students feel the same. She believes that looking forward to coming to school is important for students and adds "especially so young." She did not expand on why it mattered to have students look forward to coming to school at a young age but I would connect it to the sense of belonging and positive attitude toward school that other participants cited as creating the foundation for a positive experience in school.

The principal guessed that they had higher attendance on forest school days and also claimed that students look forward to coming. He went on to say:

Now again we didn't do studies but I would bet you, if you looked at it in the past, the attendance is pretty darn good on Monday's, last year Friday's, I mean kids want to come. Here's this great spot, kids love it; parents love it.

Jack equates high attendance with the students' and parents' love for the program. He implies that if the students did not love the program they would not mind missing school on forest school days, which would subsequently translate into the classroom's attendance records. This assumes that while there are many factors that affect attendance, it can be controlled to a certain extent.

When asked about the significance of the forest school program for students, participants in this study referenced its ability to provide differentiation, challenges, and opportunities for

success. Participants seemed to believe that students would be able to form a positive relationship with school if they were given opportunities to succeed at different styles and levels of learning. They gave examples of students being able to grow when they were challenged academically, physically, and by the realization that they may not always be the best at something. The challenges were seen as a way for students to develop toughness and grit, which could then translate into self-confidence. Several participants also cited occasions where students who were low performing in the classroom found opportunities to showcase their strengths in a forest setting, helping them develop a positive relationship with school and a sense of belonging. The forest school day was seen as something that students enjoyed and the non-academic skills discussed in this section were valued as something that could contribute to healthy student development.

CHAPTER 5: CONCLUSION

Discussion

Education in Context

There are general perceptions of what forest schooling and public schooling look like; however, the results of this study suggest that there are alternative approaches. While they didn't set out to be an example in the field, the teachers at the school show that the melding of various educational methods can work. The principal explained:

We didn't go into it to be a poster child or to change the world, it was like "ok we've got this; this will be good for our kids

This simple sentiment expresses the core of their program. The participants in this study did not claim to have all the right answers or that this is a method everyone should use. Instead, they explained how they assessed their resources, interests and perceived strengths and weaknesses to shape a program that works for them and their students. In other words, they considered the context of their school when making decisions about the educational programming they would offer their young students.

The educators at the school knew that historically the community and school partners supported outdoor education. They found that their students enjoyed participating in outdoor activities and recognized the potential of the outdoor environment around their school. Those involved in the development of the program noticed that the curriculum they were enacting was missing pieces that they considered important – time outdoors, chances to be social, and opportunities for play. Though the school did not go searching for alternative forms of education, when an example of one presented itself – the forest school in the movie, *School's Out* – and seemed to fit with the contextual factors above, they decided to try it.

The experiences a student encounters through schooling are shaped by adults, by peers and by the environments in which they take place. By implementing forest schooling in their public school, Mountain School created a new educational context in which students could learn and grow. This context was different than either method alone – forest schooling or the public school curriculum they had been enacting – as it brought together practices from each form of schooling to interact in new ways. Because the environment was changed, teachers altered their pedagogical practices, provided opportunities for peers to interact with each other in new ways, and presented new tools or artifacts for students to engage with. Participants believed this change in context prompted a change in the way students perceived and enacted schooling.

Intersections

The results of this study suggest that Mountain School was exploring intersections between rigorous academic standards and foundational developmental skills, as well as modern technology and the natural environment. By engaging with practices characteristic of forest schooling under the umbrella of a public school context, the teachers are able to oscillate between conventional and alternative methods and weave aspects of both into students' educational experiences. The participants' responses would suggest that outdoor space provides more room to move, presents opportunities for risk and success that are not present in an indoor space, and allows for more flexibility in teaching and learning. At the same time, the program is grounded in national and state standards and can be linked to more direct or structured learning the students engage in indoors, easing fears that some may have about its ability to ready students for future academic endeavors.

Though the teachers were conscious of the incorporation of state and national standards into the forest school day, the days inside the classroom were seen as more academic, while the

days outside were viewed as more focused on developmental skills. Being a public school means they still need to work toward mastering standards that will show up on the end of year tests. As such, they discussed ways that they could incorporate standards and content that they were learning indoors into the outdoor space. However, when talking about the value of the forest school day and their goals and aims for the program, “academics” and standardized content were secondary to student development and wellbeing.

When it came to what they valued about their time outdoors, the participants focused on the developmental, social, and physical benefits it could provide children. They viewed the forest school day as being more memorable and saw it fostering a positive relationship between students and the school. They saw the forest as a space where students had more autonomy and flexibility in their learning, which allowed for differentiation for all kinds of students. When students were able to find success or endure challenges, participants speculated that it provided a sense of belonging. They valued the social interaction students were able to organically engage in during free play and encouraged students to communicate and resolve conflict without adult interference. Participants also discussed how being outside less often affects our bodies and minds. They mentioned studies that show kids are developing nearsightedness in growing numbers because they no longer have to focus on far distances (Lees, 2015) and discussed nature’s effects on ADHD. Additionally, the outdoor space is simply bigger and offers more room to move, which was seen as promoting exercise and ultimately better health.

Surprisingly, participants did not cite outdoor education or stewardship as an aim or outcome of the program. Though they follow practices congruent with other outdoor educational programs and were aware that other programs work toward the goal of environmental sustainability with their students, Mountain School’s focus remained on the child. Alexa

explained that when she and Emily began the program they were aware that others were driven by sustainability and the “ecological importance of having kids outside.” She acknowledged the desire to have students foster a bond with nature and encourage them to become “defenders,” joking that this might persuade them to “invest in solar power.” However she explains:

I think that could be a byproduct of what we do. A lot of people who do what we do or show interest in what we do are motivated by that concern. Like they want to build, they want to have kids be nature lovers, but ours came more from the child. What does the child need to be a happy, healthy person?

Alexa’s sentiment further supports the idea that the participants of this study viewed the forest school day as a way to enhance the personal development of their students. Here she states that they were more interested in the child being “happy and healthy” than them learning about environmental content or concerns.

Overall, participants seemed to believe that by balancing academic rigor with outdoor activities that were viewed as more developmentally appropriate, they could promote healthy development in their students as well as a positive experience at school. The methods they used to find this balance came from assessing the educational context of their school and working to enhance their strengths and address their weaknesses. The program is fluid and flexible, changing as teachers and students change and bring new contexts to the equation. Because it is specific to their context, the program at Mountain School cannot be generalized to other places. However, as educators and researchers we can gain insight into the use of forest schooling in a public school setting through their practice, and consider its implication for our pedagogies and our students’ lived experiences.

Implications for Art Education

The industrial revolution model of education was actually very successful. It churned out carbon-copy mentalities at a time when society prized conformity. As we start to prize creativity instead, we need to look at how creativity can be fostered, and developed, and encouraged.

Michael Waldin (in *The Third Teacher*)

There are many connections between the addition of forest schooling to the public school kindergarten classroom in Mountain School and the possibilities that exist in art education. By harnessing and expanding on these connections, art educators can provide a context for developmentally appropriate experiences within a more structured school day. When viewed as a cognitive process, rather than the mere manufacturing of a product, art can provide an outlet for students to participate in the kind of experiential learning found in forest schooling. In fact, there are already several overlapping principles that exist in forest schools and many art classrooms; however, these connections have not been acknowledged in the current literature from either field.

Approaching schooling holistically and with an interdisciplinary lens allows students in both forest schools and art classrooms to make meaningful connections and expand upon prior knowledge and new interests. The teachers at Mountain School strived for balance between academic and developmental growth. They engaged their students in this kind of balanced learning through the outdoor environment, relating their everyday experiences to various opportunities for learning across diverse subject areas. Art educators engaging in interdisciplinary studies often use students' interests or prior knowledge for further exploration and integrate the use of skills learned elsewhere in hands-on curriculum. This practice in any

setting helps students make meaningful connections between their world, their skills and knowledge, and their present and future learning.

By encouraging students to break out of the confinement of carbon-copy products and strictly defined subject areas, art educators can allow students to differentiate learning to suit their needs. This kind of emergent or interest-guided curriculum requires the ability to practice flexibility. “Going with the flow” and drawing from “teachable moments” means that on some days, the lesson plan may be completely discarded. In doing so, teachers reinforce the importance of students’ contributions to the workings of the classroom or learning environment, consequently giving them agency in and responsibility for their educational experiences.

In art education, the emergence of S.T.E.A.M. (Science, Technology, Engineering, Art, and Math), choice-based, and project-based approaches have prompted discussions about what kinds of experiences promote the collaboration and “artistic” or “creative” interdisciplinary thinking that today’s employers often desire. Art education is often mistakenly characterized as inherently creative. However a glance into some art classrooms will reveal students sitting around static tables creating the same piece of artwork, based on a long-dead artist they have no connection to beyond the PowerPoint presentation the teacher may have given at the beginning of the lesson. In this setting, processes like experimentation and play – processes at the root of artistic practice – have been separated from the act of making and learning about art. As art teachers we need to be aware of the educational context we create for our students: the physical space, the kinds of artifacts we provide and how they are used and valued, what kind of peer interaction we permit or encourage, cultural norms we establish in our spaces, the histories we show, if we encourage intrinsic or extrinsic motivation, and what background we personally bring to the table. In the book *The Third Teacher*, Trung Le explains that if we believe creativity

is important, we should be asking the question: “Does this learning environment support a child’s natural instinct to learn through creation and discovery?” (OWP/P Architects, et al, 2010, p. 57).

The way art educators engage students with the tools and artifacts of our field should be authentic if they want to support the development of their creative practice. Simply assuming that children are engaging with content creatively because they are making is not enough. Humans are shaped by experiences. Children learn and interpret knowledge and events through a complex lens that includes their family life, social background, cultural understanding, community, body, diet, peers, and more. David Orr (2010) explains, “children will always learn,” though he points out “sometimes they learn things we wish they had not learned” (p. 14). Therefore, “developing a learning environment begins with identifying what is to be learned” (Barab & Duffy, 2000, p. 30). Children pick up on both content and social norms in schools. They can learn from their teachers, but also from the space itself, their parent’s interaction with school, and their peers, among other things. They may learn the academic standards set for them but they may also learn that they are “smart” or “slow.” They may learn that in order to succeed they need to follow rules or that in order to succeed they need to break them. They may learn that they are a star artist, the class clown, a troublemaker, or a hard worker depending on how they are treated by peers and teachers. And in the classroom they may learn skills and facts, or they may learn how to think critically and problem solve.

In the art room, it is easy to get caught up in deadlines and products, with art show schedules, report card deadlines, school programs to align with, and other events or situations that hold teachers accountable to dates and finished products. However, including time for students to experiment with and explore materials, ideas, processes, or concepts, is important to

their development as artists and learners. In order to evoke a sense of wonder and interest in students, they need to be given time to experience the world around them. The kindergarten classroom at Mountain School used the forest school day to allow time for unguided observation and play, as well as time to experiment with new, developing knowledge, practices that were largely absent from the school I taught in. These practices grant students the freedom to respond to situations and the environment in their own way, make their own decisions, and take their own risks. It is a form of tangible learning that presents new challenges and opportunities for success, and gives them ownership of discovered knowledge. In this system, the teacher's role is to support and help if warranted or requested by a student. This exploration can provide inspiration for future work, or may help students develop a creative mindset.

In the art classroom, we need to find time to allow students this kind of autonomy in their learning and tune in to what it is they actually need to be successful in their academic careers and beyond. In *The Art and Science of Creativity*, George Kneller (1965), states:

Creativity, as has been said, consists largely of rearranging what we know in order to find out what we do not know...Hence, to think creatively, we must be able to look afresh at what we normally take for granted. (p. 59)

As educators, we need to look afresh at the context that we offer students and whether or not it allows them to rearrange what they know. Are we merely presenting them with facts and how-to's? Or are we challenging them to take risks, experiment and explore, collaborate, and engage with tools in new ways? In a world that champions creativity, we must move past an industrialized form of education in order to equip students with the kinds of artifacts, that will help them develop as creative thinkers and learners. Art educators can look to alternative forms

of education (such as those used by Mountain School) to inform the experiences they offer students.

Recommendations for Further Research

This case study highlighted a number of topics associated with the theories and practices of education. Because it was an intrinsic case study, the aim of this research was to better understand the use of forest school in the context of this classroom rather than addressing individual issues that evolved from the data. However little research has been done on forest schooling and I found no research on its use in public schools in the United States. Therefore this study was intended as a starting point for further research into forest schooling, particularly within the realm of public schooling. Through my description and exploration of the program, I encountered a variety of topics that I feel could be studied to better understand the use of forest schooling. Because it is a relatively new phenomenon, more research is needed on the effects of forest schooling on students in the United States. Longitudinal studies following students who have completed the forest school program would be beneficial in understanding if and how the program is valuable to students in the long term. Studies could also investigate academic success and follow up on claims made by participants in this study such as, students developing: a sense of belonging, positive view of school, and self-confidence. Other recommended areas of study include an investigation into the possibilities of incorporating the practices of forest schooling into small spaces such as those often associated with inner city schools, the power relationships that occur between the students and teachers in an indoor setting versus an outdoor setting and how the use of labels to categorize students is affected by the use of informal learning environments within a public school curriculum. These kinds of studies would help understand

how the contextual change from indoors to outdoors or from formal to informal learning environments affect students' educational experiences and shape their learning opportunities and outcomes.

Reflections

As I began this research, I wanted to investigate how public schools might include time for experience-based learning and play into the school day. I taught in a public school that, because of its failing status, found itself cultivating an “education as testing” culture. As such, I wanted to investigate alternative methods of teaching and learning that highlighted the traits I found absent there. Forest schooling presented itself as one such method. Because I was specifically interested in public schooling, I focused on a public school that was utilizing aspects of forest schooling within their curriculum. As I learned more about the case, I found that the teachers expanded upon the school's existing environmental context in order to counterbalance the academic standards that are mandated by the educational system in the United States. Forest schooling fit their context and needs, providing their students with what they viewed as developmentally appropriate activities. My initial reaction was to call the interaction between the two methods – forest schooling and the public school curriculum they had been enacting - a balance. However, the word “balance” is often associated with equal portions. In this case, I decided that a more appropriate description of what was happening was an intersection between the alternative and more traditional methods of schooling. The two methods meet at times, while other times they remain separate. The intersections however present students with different educational opportunities than either method could independently.

Forest schooling provides an alternative to the kind of public schooling we have come to expect in the current era of high-stakes testing. Mountain School shows teachers that they can allow students time to play and explore without sacrificing their work towards standards. The addition of forest schooling into their program allowed the teachers there to provide new opportunities for students to succeed and be challenged in ways that were different from the indoor classroom. By changing the learning environment, they were able to introduce greater flexibility and differentiation into their educational context. As I reflect on what I have learned from this research and move forward as an art educator, I will consider intersections that might work for my new students, our school, and its physical surroundings. Though I will not be teaching in a school surrounded by forest, I hope to engage students in activities informed by forest schooling concepts. In art this may include experimentation with new materials and ideas, flexibility in the curriculum, making and learning in spaces outside the walls of the classroom, and providing open-ended projects that allow students to take risks and create their own response to a challenge. When learners are able to personally invest in the learning, they are more likely to be engaged in a memorable and meaningful experience.

Some schools already encourage teachers to explore intersections and engage students in critical thinking and creative practice. However it is often private or privileged schools that are afforded the flexibility to do so, while low-income or failing schools often end up being dictated by the test and falling into an “education as testing” mentality. In looking for intersections between standardized curricula and alternative practices, I hope to provide my students with the skills and confidence they need to navigate the educational system, workplace, and life’s other complexities. Even small changes in educational contexts and curricula have the potential to disrupt the education as testing mentality and expand the boundaries of learning for our students.

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APPENDIX A

Hello!

My name is Melanie Bradshaw and I am a Master's candidate for Art Education at the University of Illinois in Urbana-Champaign. Prior to this latest endeavor, I was an elementary school art teacher for 4 years in Arkansas and plan on returning to the classroom after I complete my graduate degree. I am e-mailing because I have started my research and came across your contact information in the article [REDACTED] published in April of this year. I am interested in researching public schools that are providing more inquiry based opportunities for students, their effectiveness, and how to incorporate this kind of student-directed learning into public education (something that in my experience, was lacking). I was so excited to hear about your program and am in the process of looking through your blog! I am interested in learning more about what your students do and both the positive and challenging aspects of your program. I am currently looking into Forest Schools and Adventure Playgrounds as models of inquiry based learning and would love any suggestions or insight into this topic, more information on why you started your program, and if you think the idea could be implemented in other places. I am new to this area of study and would appreciate any information or insight you are able to provide. I look forward to hearing from you!

Best,

Melanie

APPENDIX B

Hello again,

It has been quite a while since I contacted you last, inquiring about the forest school components of your kindergarten classroom. I hope all is well and that you have been able to enjoy time with your new addition to the family!

I am still very interested in forest schooling and its ability to be incorporated into public school curricula. I have narrowed down my research interests, questions, and literature since we last spoke and am looking into incorporating a case-study of your forest school program into my thesis if possible. I would be hoping to look into how this component of your school came into being and the challenges and opportunities it has presented to your students, school, and community. The purpose would be to assist other schools that are considering forest schooling and perhaps bring it to the attention of those who do not consider it a possibility.

I wanted to reach out to you first, as it is your classroom, to see if you would be comfortable with that idea before contacting school leadership to get approval for the project. I would particularly be looking at conducting interviews with you, other faculty or staff related to the program, and parents to learn more about the topics above as well as, visiting the school site to get a better feel for the environment you operate in and hopefully have some time to talk to you and others in person.

By participating in the project, you and any other participants would have the right to confidentiality. I can alter details such as names and places to protect anonymity to any extent possible. I would be happy to answer any questions or give you more details if you'd like either through email or phone if you would rather talk with me directly. If you would be interested in participating in this research, I will go ahead and move forward with contacting leadership at your school to run the idea by them as well.

Thanks so much for your time and for being a role model in the field of education!

Best,
Melanie

APPENDIX C

Hi [REDACTED],

My name is Melanie Bradshaw and I am a graduate student of Art Education at the University of Illinois. I received your email from [REDACTED] as someone connected to the forest school program at [REDACTED]. I am contacting you because as part of my master's program, I am researching forest schooling and its application to public schools. I have found that your school is one of the few, if not only public school, to emphasize forest schooling in your curriculum. As little research has been done in this area, my goal is for this research to assist other schools that are considering forest schooling and perhaps bring it to the attention of those who do not consider it a possibility.

I am writing to ask whether you would be interested in participating in an interview this summer as part of the project. I will be in Vermont June 10th to attend the In Bloom conference on forest schooling and would conduct interviews within a one-two week range of that time. If in-person participation was not possible, but you were interested in contributing to the research, we could arrange a phone or video-call interview as an alternative. The research would be a case-study of how this component of your school came into being, and the challenges and opportunities it has presented. Through interviews, I am interested in learning more about what resources the school used to make the program possible, how it integrates into the rest of the kindergarten program, and what kind of challenges and opportunities have resulted from it. I would be looking to do one interview with each participant, with the potential for a follow-up conversation to clarify details or review my representation of their responses.

By participating in this project, you have the right to confidentiality. I can alter details such as names and places to protect participants' anonymity to the extent that it is possible. You may also choose to withdraw from participating in the research project at anytime, for any or no reason.

If you are interested in participating in this research, we could arrange a time to discuss further details and answer questions. Thank you for your time and for being a role model in the field of education. I look forward to hearing from you.

Best,
Melanie Bradshaw

APPENDIX D

Informed and Voluntary Consent Form

Researcher: Melanie Bradshaw

Thank you for your willingness to participate in an interview for my research project. As you may or may not know, my research is attempting to describe and understand the educational practices of the forest school program you use as part of the kindergarten curriculum at your school. It is my hope that this work may support further research on forest schooling and inform others who are interested in the possibility and practices of forest schooling, especially in a public school context.

Information from this interview will be included in my master's thesis, which will be publicly available through the University of Illinois. I also withhold the right to publish this account in other outlets such as journals or websites.

As a participant in this research, you have the right to confidentiality. I will seek your ongoing permission to share transcripts of our interviews with others. Pseudonyms will be used in transcriptions and in the any publications or further writing or presentations involving the study. I will be able to promise a degree of confidentiality, but because of the uniqueness of the case, I will not be able to guarantee anonymity. However, I am willing to consider altering/eliminating particular details upon request, in order to preserve your anonymity to the extent possible.

I plan on recording and transcribing our interviews. I will do my best to protect this information by storing data in secure locations. If data is ever lost or compromised in any way, I will attempt to notify you immediately.

You have the right to withdraw at any time from participating in this research, or particular aspects of this research for any reason and are not obligated to tell me why.

During the course of the research, if you have particular concerns that you want anonymously shared with me, I invite you to contact my supervisor, a faculty member at the University of Illinois, School of Art and Design. You may reach him at:

Thank you again for your willingness to participate. I recognize that this research places a demand on your time, but I hope that it is a positive and beneficial process for you.

If you have any ethical questions or concerns that you feel I have not addressed in this letter, please feel free to contact me at your convenience. You may reach me at:

By signing this letter, you understand and agree to what I have proposed above.

SIGNED _____ DATE _____

PRINTED NAME _____