**Parallels between Social Justice Education
and a Nature Preschool:
A Qualitative Case Study**

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Abstract

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This paper examines ways that the pedagogy of a budding nature preschool incorporates

elements of social justice education. Interviews, observations, and document analysis are used

to explore ways that the design and practices of a nature preschool reflect 3-5 year olds'

capacities for knowing and learning. The author considers how these reflections are relevant to

social justice education scholarship, Social Reproduction Theory, reflective inquiry pedagogies

literature, and current early child development research. Research findings indicate five ways

that the nature preschool's design and practices support parallels to social justice education.

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Chapter I:

Introduction: The Problem for Research

Reform policies aimed at Early Childhood Education are increasingly focused on student readiness measures for the standards-based K-12 education system (Brown, 2010). This policy trend illustrates a frame for Early Childhood Education as a "mechanism that can improve students' success in school"—as preparation for academic success in elementary school (Brown, 2010, p.138). One goal that is not widely held among educational policymakers, those enacting and implementing educational policies like early childhood educators, or the public, is that of social justice education. Those educators that do concentrate on pursuing social justice through education do not typically attempt this in the preschool years. A social justice goal, which does not submit to easy measurement, provokes research questions about ways a preschool context might matter to how and whether the aims of social justice education are realized. As social justice education and its outcomes are lifelong concerns, there is every reason to believe that our earliest educational experiences either facilitate and/or impede them.

To understand where and how social justice education elements or practices can be realized in the preschool years may take us beyond the normal boundaries and constraints of preschool education, as it is typically practiced. Specifically, it may encourage us to explore particular designs for preschool education that are conceived to support and nurture students' development of reflective inquiry that underlies the critical exercise of social justice. One such context may be what I will call the "nature preschool"—a year-long, tuition-based program with a premise to support 3-5 year old children's organic learning, and pursuits of curiosity, wonder, and discovery, by providing opportunities for play-based and hands-on experiences in nature. Since "learning environments… are often places through which children become aware of, and begin reproducing, social identities that circulate through broader social space", consideration of

their scope is significant (Gagen, 2000, p. 184).

Investigating the possibilities for a preschool experience that is more focused on social justice principles and ideas may also broaden the frames of reference that social justice educators normally hold. Typically concerned with helping adults, or young people approaching adulthood, understand their relationship to power, their experience of inequity, and their capacity to act for change, social justice education has yet to comprehensively examine the notion that the foundations for relationships to power, worldviews, and capacities to act may begin in very young children.

The purpose of this research is to better understand in what ways, if any, parallels between social justice education and a nature preschool's design or practices are reflected, supported, and/or encouraged. Specifically, this study sought to identify and examine any evidence that (1) the design of the preschool and the ways this design is realized treats 3-5 year old children as both knowers and learners; and (2) this treatment embodies the basic principles, concepts, and interactions that are integral to social justice education.

Interpreting Social Justice Education in Literature

In order to pursue questions about ways that a preschool program's design and practices reflect parallels to social justice education, it is necessary to provide an interpretation, as well as the frame for this interpretation, of social justice education. The choice of the word interpretation is very intentional, as "notions of social justice are varied, complex, and contested (McKenzie et al., 2008)," and "because of the nature of social justice, there is an inherent danger in attempting to articulate an essentialized definition," (Dantley & Tillman, 2006, p. 20).

The working definition for social justice education in this qualitative research comes from Dantley and Tillman, who used the terms *social justice* and *leadership for social justice* interchangeably in their chapter-long mission to "articulate definitions of the term social justice,"

(2006, p. 19). They deliberated their claim that "leadership for social justice investigates and poses solutions for issues that generate and reproduce social inequities," (2006, p. 20). Dantley and Tillman concluded their definition for leadership for social justice as interrogation of "the policies and procedures that shape schools and at the same time perpetuate social inequities and marginalization due to race, class, gender, and other markers of difference," (2006, p. 31).

The term "social justice" is "less a thing and more an ethical position" (Ladson-Billings, in Ladsman et al.; 2006, p. 40). Thus, utilizing this term in educational research has inherent challenges. One of these challenges is that *social justice* has been used interchangeably with *social justice leadership*, *social justice education*, *multicultural education*, and *equity*, as this "ethical position" encompasses all of these movements.

Building on this definition, my study is informed by various scholarship with a "social justice orientation" (Dantley & Tillman, 2006, p. 20), including: Ladson-Billings' work on Critical Race Theory (2001 & 2006); Social Reproduction Theory work by Collins (2009), Fitz, Davies and Evans (2006), and Levine (1995); multicultural education and critical pedagogy work—including emerging critical consciousness development, Indigenous Pedagogies, and decolonizing education—by Banks (1996); hooks (1994); Grant (2012); Gay and Kirkland (2003); Battiste (2013) and Freire (1970); Allport's Nature of Prejudice Theory (1954); critical philosophy work by Code (1991) and Collins (2000); and early childhood anti-bias work by Rogoff (2003) and Derman-Sparks (2010). In chapter two, I chronicle three common key themes that these scholars report as necessary to investigate in social justice education: the nature of knowledge construction and meaning-making, dichotomies of knowers and learners, and the empowerment allowed in reflective inquiry. However, this literature does not reveal a comprehensive range of tasks for social justice education for 3-5 year olds, despite evidence that "early beliefs shape the way we see the world later on," (Gopnik, 2009, p. 189).

Since deducing a definition of social justice is risky due to its nature (Dantley & Tillman, 2006), it is crucial to look to preeminent scholarship in the alternatively-named field for guidance

in defining this "ethical position". According to Banks and Banks, "multicultural education is defined as 'a field of study and an emerging discipline whose major aim is to create equal educational opportunities for students from diverse racial, ethnic, social-class, and cultural groups'" (Banks & Banks, 1995, as in C.A.M. Banks, in Banks, 1996, p. 46). To identify one definition for the "ethical position" (Ladson-Billings, in Ladsman, 2006) of *social justice* based on these two definitions from Banks and Banks (1995) and Dantley and Tillman (2006), then, is to consider social justice a study, an aim, a position, and an act of interrogation, to create equal opportunities for all students.

Additionally, since "an important goal of multicultural teaching is to help students to understand how knowledge is constructed" (Banks, 1996, p. 21), this study seeks out tangible parallels in a preschool's design and practices that support this goal. For the purposes of this case study, I will refer to the term social justice as: a study, an aim, an ethical position, and an act of interrogation, to create equal opportunities for all students from diverse racial, ethnic, social-class, gender, and cultural groups (Ladson-Billings, as in Ladsman et al., 2006; Banks & Banks, 1995, as in C.A.M. Banks, in Banks, 1996; Dantley & Tillman, 2006).

Context and Rationale for Exploring Social Justice Dimensions
of Preschool Education

My investigation takes place within a larger educational policy context that does not prioritize social justice as a central goal of public education, and that places heavy emphasis on academic achievement outcomes rather than learning processes. In this current age where implementing universal, formal education for pre-K children and doubling the day for Kindergartners is becoming standard, closely examining one preschool program's premise of unstructured exploration is particularly relevant. The time is ripe for a conversation about the relevance of early childhood development to key ideas in social justice education literature.

Specifically, how the 3-5 year old child spends his or her time in school—choosing whether and how to play pretend out on a forest path, or participating instead in a standards-based letter formation and shape cutting lesson—can have consequences for how much, and whether, the child participates in learning that does or does not uphold or incorporate social justice education. One outcome of learning not representative of social justice is referred to as *social reproduction*. Social Reproduction Theory, described further in chapter two, argues that schools play paramount roles in maintaining social inequalities (Collins, 2009; Fitz, Davies, & Evans, 2006) when functioning with a factory model (Levine, 1995) where the partition between "those who know" and "those who are… initiated" (Fitz et al., 2006, p. 84) predominates. This case study explores the idea that if schools' designs and practices can replicate inequities, that they can interrupt processes of social reproduction as well.

An examination of one critical case, of the design and practices of the nature preschool, can induce conversation about (1) the common space that both social justice education and early childhood education share, and (2) the ways that pre-Kindergarten and Kindergarten policies reflect early childhood process and outcome paradigms.

By identifying the presence or absence of parallels between social justice education and a nature preschool, this paper considers the ways our lenses of early childhood education and social justice education do or can interact with one another. In particular, this examination reveals within the heart of one preschool classroom the classic dichotomy of "those who know and those who are initiated" (Fitz et al., 2006, p. 84) by highlighting the ways the program model reflects the nature of *knowledge construction* for 3-5 year olds and implications for the pursuit of social justice. Not unlike other case studies, this qualitative research attempts to focus, at a micro-level, on interpreting one "cog" among innumerable others, turning our massive-scale reality.

Recent standards-focused policies tend to reflect predetermined, predestined outcomes for achievement that are not reflective of creativity, innovation, and care for justice, which are arguably equally important goals for the healthy development of young children. For example, successful Kindergartners are those who correctly identify letters, shapes, numbers, and some words. Success in Kindergarten is not measured by questions that students formulate, inclusion of peers in cooperative play, or processes in curious inquiry. In this age where public education policy reflects educational achievement via assessments, this research attends instead to the child's learning *process*, thus far lacking and/or dismissed in current policies.

Supposedly "high-quality" preschools tend to be advertised with structures that emphasize meeting subject criteria and dedicated subject matter, and ability to provide children with pre-Kindergarten (identification) knowledge: letters, numbers, shapes, and words—at an even earlier age. Notably missing in these structures is a reflection of assets of 3-5 year old children and their childishness, and of validity for their direction of their time in preschool. This research explores ways that the lesser-known program model embedded in a nature preschool acknowledges these characteristics, and then considers what they might mean for, and how they might apply to, elements of social justice education.

My research is about potential ways that one preschool's design and practices may empower children to interrupt social reproduction. My research matters if we truly wish to sow seeds for early childhood social justice education, in ways that start to disrupt the social reproduction of systems held in place to persistently benefit some and disadvantage others. As such, this research is intended to inform paradigms of social justice education and early childhood education. By drawing on a body of literature about social justice education, this research addresses an understudied phenomenon of how the capacities of preschoolers are supported and encouraged in reflective knowledge construction—a fundamental practice in

social justice education.

Preschool Designs and Practices for Social Justice Education

As any preschool, a nature preschool's design and practices reflect assumptions and beliefs about young children's capacities to learn. By carefully examining the design and practices of the nature preschool—particularly any support and encouragement given to 3-5 year olds to be curious knowledge constructors—this research reveals assumptions about young children's adequacies and/or inadequacies for knowing, learning, and making meaning of the world. Inherently, then, this research will also disclose any evidence of educator bias linked with assumptions about 3-5 year old students.

By better understanding preschool designs and practices, seen from the perspective of social justice education, we will be better able to visualize more specifically how young people can participate in learning experiences that socially reproduce inequities or in ones that interrupt this social reproduction process. In principle, if an early learning program can promote social injustice, however unintentionally, it can also promote social justice. This possibility has remained a focal point throughout my work here, and this paper represents a comprehensive examination of it. My mission as a researcher, in making theoretical and evidence-based connections, is to strive for the consciousness to avoid false certainty of social justice knowledge. As cautioned by Gorski, those who claim dedication to multicultural education can in fact, unintentionally, perpetrate the crisis (in Ladsman & Lewis, 2006).

My Positionality in this Research

It is important that I reveal my lens, as a researcher, especially given the fact that in the qualitative study reported here, I am the "human instrument" of research. I am a White, female, middle-class, first-generation college- and graduate school student, and am filled with education-based questions and concerns that have only grown more complicated with the

coming of my own school-aged child who currently attends public elementary school. I come to qualitative research as a former primary public elementary school teacher, with work experience in an equity and integration professional development capacity as well. I am particularly interested in social justice education and how it relates to leadership, policy, and early learning. Thus, I am engaged in a lifelong "process of digging through [my] socialization" so that I can allege that I am "not unintentionally contributing to the alienation and exclusion of our students, colleagues, and community members," (Gorski, as in Ladsman, et al., 2006, p. 70).

My path of educational work experiences, years of leadership and policy studies in graduate school, and role as a parent of a two- and six-year old, has recently led to my interest in research that prompts a conversation between early childhood pedagogy and social justice work. An account of Fitz, Davies & Evans (2006) about their omission in their research resonated with me, as my own research interest began to point to early education: "Finally, our greatest regret is that we stay out of classrooms, which is where the work of reproduction mainly occurs in education and to which policy has now directly penetrated, albeit mainly at the primary level," (p. 15). Thus, rather than further provide evidence or support for a theory about the ways that the early level classrooms perpetuate or at last initiate social reproduction, I chose to look at how a lesser-known program model might complicate, participate in, or even disrupt, this reproduction.

Most of all, I am "a curious student who comes to learn from and with research participants," and I "do not come as an expert or authority" (Glesne, 2011, p. 60). As such, I am open to subjective insights, at the same time that I strive to represent what I observe faithfully and accurately. My strategy in positioning my research as subjective is to strengthen a sense of validity for "objectivity" in my study (Code, 1991). After my own child embarked on a one year journey as a student at this nature preschool, I started thinking about the experience in terms that the research had not addressed: how the design and practices at the nature school might be connected with social justice education praxis and/or principles.

Focus for Inquiry and Research Questions

The concerns discussed earlier highlight an important knowledge gap (Merriam, 2009) that sits at the intersection of early childhood education and social justice education. We understand in some detail what social justice learning, and how to undertake it, might entail for older children and especially for adults. In particular, we know that deeply reflecting about knowledge construction and deconstruction, and ability to ask critical questions of one's self and one's socialization—"self-scrutiny" (Ladsman, in Ladsman et al., 2006, p. 15), and of the world in which one lives (including the knowledge constructed about it by others), is central to a social justice stance. And we know a lot about the early childhood education policy climate that places a high priority on early achievement of academic goals.

Implementations and processes toward more equitable outcomes are less prioritized and less regulated than student achievement expectations and/or outcomes. During my research process, from the proposal to the findings analysis, my inquiry was about a conversation that I haven't found in the literature: in what ways, if any, does a nature preschool's praxis have relevance to social justice education? In what ways does one school's design and practices support 3-5 year old students' contributions to knowledge construction as it pertains to social reproduction? Further, what, if any, might implications be for social justice education and social reproduction, when some of our earliest students are introduced to school learning with largely undirected, explorative, and reflective time, in a nature-based setting? This study attempts to consolidate 1) what current research tells us about how 3-5 year olds learn; 2) ways this current research is reflected in our educational designs and practices; 3) policies, policy implementation, and intervention governance; and 4) how the assets of 3-5 year olds are reflected in a nature preschool and in policies; all with 5) social justice education and pedagogy.

We have yet to understand with any precision the ways in which very young children could participate in educational practices for social justice, or begin to develop a basis for the foundational skills about "how we think" (Ladson-Billings, in Ladsman et al., 2006, p. 30) and habits of mind that underlie a social justice worldview and/or position. Taking advantage of an unusual preschool design, in which the latter issue may come into view more readily, I ask the following questions:

1.   In what ways, if at all, do the design and practices of a nature preschool reflect, support, and/or encourage an asset-view that 3-5 year old students are knowers and learners?

    a. Practically speaking, what opportunities do the children have for knowledge construction, and what knowledge do they construct?

    b. What opportunities exist, if any, for the students to pursue curiosity and/or engage in undefined learning, and how do they respond to these opportunities?

    c. How and to what extent do these opportunities arise intentionally and regularly within the preschool program's structure, culture, adult-child interactions, curriculum pedagogy, and school-family relations?

2.   How, if at all, do these opportunities and the children's response to them reflect parallels to social justice education?

Organization of This Thesis

The literature base that follows in chapter two helps inform these questions and ways to address them. There, I will provide a broader literature review that includes conceptual and theoretical frames about social justice education and its intersections with preschool pedagogy, designs, and practices. Then, my case study's design and methods are discussed in chapter three, where I'll provide details about my research strategies, settings, participants, data collection and analysis methods, and my design limitations. Chapter four summarizes this study's findings about five ways that parallels between social justice education and the nature

preschool's design and practices were reflected. Finally, chapter five includes the conclusions

and practical implications of this research on educational policies and pedagogies.

Chapter 2:

Framing Ideas and Informing Literatures:

Nature Preschool Praxis and Social Justice Education

Significant amounts of literature report the necessity of critical thinking skills, as well as the empowerment allowed in curious inquiry, within the process of meaning making in social justice education (Grant, 2012; Derman-Sparks, 1995; Dantley & Tillman, 2006; Code, 1991; Collins, 2000; Gay, 2000; Freire, 1970). Following, I will situate the research problem in literature, and highlight key framing ideas that pertain to my study. In the absence of a shared vision for early childhood social justice education and its archetypes, I will then further review a compilation, and unpacking, of four themes in the literature on social justice education relevant to such vision and tasks. This chapter concludes with a review of how these framing ideas apply to my research study and offer a useful way to conceptualize what it is seeking to uncover.

Research Problem in Theoretical Perspective:

Educational Inequalities and Earlier Intervention

Student achievement data consistently reveals achievement inequities and gaps in standardized test scores between Black and White, Latina/o and White, and recent immigrant and White students" (Ladson-Billings, 2006). Ladson-Billings (2006) has referred to these inequities and disparities as "educational debt". As the educational debt continues to loom, the "standardization" of early childhood education—by which I mean the call for universal preschool education, oriented to early academic preparation and academic learning standards—is one of the more recent interventions being considered, and undertaken, for debt intervention. In the

words of one call for universal preschool, "if we truly want all children to succeed in school, then we must ensure that all children come to school ready to learn" (Smith, 2004, p. 38). Not all preschools follow this script; the nature preschool's play-based, exploratory design on which this study will focus offers a different response to the effort to combat educational achievement inequities with proactive and reactive early intervention. At the root of the issue are different conceptions of what it means to be "ready to learn" – and to learn what, specifically.

Universal preschool is a hot button on the table in many states, and already implemented in some, like New Jersey and Illinois (Klein, 2007). Preschool Nation is a startup movement to implement universal preschool in additional places, like New York City and Los Angeles (preschoolnation.org). But before this kind of policy is repeated in jurisdictions across the land it should be considered in the light of broad patterns of social reproduction and "decolonization." These theoretical frames offer potential insight into what may be at stake as universal preschool policies proceed. Social Reproduction Theory and scholarship about decolonizing education assert that educational programs, such as universal preschool, can either decolonize or reproduce inequitable systems.

Social Reproduction

Social Reproduction Theory argues that schools are not establishments for equal opportunity but instead instruments for maintaining social inequalities (Collins, 2009). From this perspective, schools have been assigned a key role in this replication of inequality (Fitz, Davies, & Evans, 2006). My research draws on Social Reproduction Theory since:

Social reproduction theorists have been concerned to examine how institutions and agencies outside the field of economic production, such as families, schools, churches, universities and other cultural institutions, reflect the differently distributed system of values of the division of labor, asking if and how their social function is to constitute and

sustain that division of labor and its associated classes. (Fitz et al., 2006, p. 64)

It is crucial, then, to consider the prospect of universal preschool, since this structure can perpetuate inequality at an even younger age. Research that takes this viewpoint attends to an omission of British social reproduction scholars Fitz, Davies, and Evans (2006) by looking closely in a primary classroom, which the authors declare is where most social reproduction occurs. In other words, they've claimed that the systems that benefit some and disadvantage others are maintained, mostly, in early childhood classrooms. Fitz et al. reference the work of Bernstein (1996:8) and Gorard (2000) in making this claim. Bernstein's work that informed that of Fitz et al. was based largely on John Dewey's theory of education. In his extensive writing about Dewey, Bernstein identified the place in Dewey's work where the early classroom became a focus, stating, "Dewey's interest in social reform, originally unfocused and more passionate than persuasive, is now clearly directed to the education of the young" (Bernstein, 1966, p. 41). Specifically, Bernstein points to Dewey's sentiment that the school could operate like a "new society where cooperation rather than competition should rule" (Dewey, 1956, in Bernstein, 1966, p. 41). Bernstein postulates then, that:

> the social character of the school becomes the most effective means for educating
> individuals who can correct abuses and injustices of the larger society in which they will
> grow up. The school becomes the most effective means for improving and reforming
> society (Bernstein, 1966, p. 40).

Dewey courageously defended his faith that the school was "the most effective means for social progress and for developing the virtues required for a creative, democratic community" (Bernstein, 1966, p. 43). Dewey insisted that education was to be "a continuous process of reconstruction…progressive movement…that becomes more pregnant with meaning" to foster "the art of critical thinking" (Bernstein, 1966, pp. 142-143).

Research can address Social Reproduction Theory by examining opportunities given to preschool students to receive deposits of knowledge, and to discern to whom *knowing* applies. For example, studies can look at what kinds of language are used with preschool students and what kinds of opportunities for curiosity are provided. By doing so, researchers can examine whether and how preschool programs potentially impact, support, and/or disrupt "the depressing (though largely unacknowledged) reality of 'school as factory'" model, depicted by Social Reproduction Theory as reproducing social inequalities (Levine, 1995, p. 53). Investigating such opportunities is imperative, since "nowhere has this been more so than in education where the divide between those who know and those who are to be initiated has been its key [organizing] principle," (Fitz et al., 2006, p. 84). This verdict of Social Reproduction Theory challenges the call for universal preschools to prepare young children to learn within dominated standards.

Decolonizing Education

In tandem with this theory is scholarship about decolonizing education that asserts that "every school is either a site of reproduction or a site of change. In other words, education can be liberating, or it can domesticate and maintain domination. It can sustain colonization in neo-colonial ways or it can decolonize," (Battiste, 2013, p. 175). The juxtaposition of Social Reproduction Theory with ideas about decolonizing education brings the implementation of universal preschool to task. According to these parallel positions, each school fits onto only one side in a dichotomy of *reproducing* or *decolonizing*. Universal preschool, then, is either an educational structure for reproducing or decolonizing our system that contains barriers to some "based on gender, race/ethnicity, national origin, color, disability, age, or other protected group status", including "historically underserved or underrepresented populations," (Skrla, Bell McKenzie & Scheurich, 2009, pp. 3-4).

Battiste labeled the teaching and learning transfer in social reproduction structures as cognitive imperialism, defined as "a form of manipulation used in Eurocentric educational

systems. Built on damaging assumptions and imperialist knowledge, educational curricula and

pedagogy are built on a monocultural foundation of knowledge, and privileges it through public

education (Battiste, 1986)," (2013, p. 161). This matters to Social Reproduction Theory and

universal preschool as to what is being socially reproduced, and more critically, who and what

are being dismissed. According to both stances, a multicultural—and socially just—foundation

is typically lacking and/or dismissed in the current education system. To explore this possibility

and consider possible alternatives to it, research can look for evidence of the presence or

absence of signs of cognitive imperialism in preschool programs of different kinds. A lack of

cognitive imperialism would be evident in "the distinctive features of Indigenous knowledge and

pedagogy" which "are learning by observation and doing, learning through authentic

experiences and individualized instruction, and learning through enjoyment" (Battiste, 2013, pp.

178-179).

Four Themes at the Intersection Between Social Justice Education
and Preschool Education

In this section, I will look closely at four themes in scholarship that lies at the intersection

between research on social justice pedagogies and the nature of preschool teaching and

learning. These themes help establish the space that social justice education for 3-5 year olds

occupies in my research. First, I will survey calls for contemplative education. Next, I will

deconstruct pedagogies that address such calls. Then, I will consider literature about what the

natural world can nurture in the learning process. Finally, I will discuss ways the literature

merges these themes with schooling designs and practices for 3-5 year olds.

Theme 1: Calls for Contemplative Education

The need for a practice of reflection in social justice learning, for students and educators,

has been well cited (Billings, G. L., 2001 & 2006; hooks, b., 1994; Howard, G., 2006; Cochran-

Smith, M., 2004; DuBois, W. E. B., 1903; and Ladsman, J, 2006.). A central thread woven

throughout social justice scholarship is that reflection is a fundamental exercise for educators

and students to engage in, (hooks, b., 1994; Freire, P. 1970; Gay & Kirkland, 2003; Grant, C.,

2010; Banks, J. A., 1996; Battiste, M., 2013). An essence of a social justice-learning lens is

reflection, or contemplation, about the learning that is taking place. For example: *what is being*

learned? Who is learning it? Whose knowledge is it? What are the roles of students and

educators? Creation of deeply-seated world-views, sorting what is right from what is not, sorting

who the knowledge controllers are from who they are not, and sorting which knowledge is

important from which is not—this meaning making about the world—starts long before

adulthood, and in fact, is heavily sourced to the design of early childhood education (Fitz et al.

2006).

Educational pedagogy scholars hooks (1994) and Counts (1932) have implored

educators to value the child and his/her knowledge construction process, and do so with a clear

vision for reflection and self-actualization. In addition to looking for contemplative, reflective

teaching practices, this research has paid attention to the need for teachers' "self-assessment",

or transparency of teachers' understanding of their own selves and/or bias, in their work and

perceptions (Grant, 2012; Derman-Sparks & Edwards, 2010).

Contemplative practice is not prescribed exclusively for educators or for students. Fitz et

al. complicate professional learning to address class- and race-based educational gaps by

shifting focus to a symbolic influence of educational designs and practices for young children.

They argued that "pre-nursery and primary schooling experience matter greatly in respect of

social and educational reproduction," (Fitz et al., 2006, p. 14). On primary schooling, the

authors specified:

> If things are to change in terms of class chances, it is here that they will do so, through
>
> the elaboration of pedagogic forms which, once more in Bernstein's terms, enable

reflection 'on what is to be acquired and how it is to be acquired' (Bernstein, 1996: 8).

But students can only learn how to learn and to distinguish between their local and

wider worlds when knowledge, resource and access conditions provide a context which

is appropriate to them in all sorts of conditions, (Fitz et al., 2006, p. 15).

My qualitative study has sought to locate resource and access conditions for such learning to

take place.

A seminal piece in this stream of literature is Freire's (1970) *Pedagogy of the*

Oppressed. Freire (1970) charged the education field with the task of learning and educating in

order to increase our humanness and transform our world in "the pursuit of full humanity" (p.

57). Therefore, teachers' duty is to provide the conditions for adult students to develop

empowerment by finding out how reality is not inevitable or static (Freire, 1970). Though his

ideas were originally framed with adult learners in mind, research on preschool education can

draw from Freire's theories for adult learning and apply them to learning practices for 3-5 year

olds. By looking for ways that 3-5 year old students are reflected as *knowers* in a process of

inquiry, such studies can attempt to find alternatives to practices where students are viewed as

banks that receive "knowledge…a gift bestowed by those who consider themselves

knowledgeable," (Freire, 1970, p. 72). Since "the more students work at storing the deposits

entrusted to them, the less they develop the critical consciousness which would result from their

intervention in the world as transformers of that world," research that explores the beginnings of

critical consciousness in young children will look for—and closely at—opportunities when young

children are not treated as "depositories", and instead engaged in the inquiry process as

"depositors" as well (Freire, 1970, p. 73).

In literature about constructing *leadership* for social justice, teaching is noted as an area

of social justice *praxis*—meaning that principles of social justice are actively applied and

practiced—or more specifically, "it is in our university and K-12 classrooms that we can ensure that the principles of social justice and moral transformative leadership are studied, adopted, and practiced," (Dantely & Tillman, 2006, p. 27). Battiste called for all educators to join in her action to decolonize education, as "to accept education as it is, however, is to betray it" (2013, p. 190).

Pursuing scholarship along these lines addresses a gap between calls for social justice leadership and teaching, and early childhood: a gap in early childhood social justice praxis. Our earliest education has not received much attention by way of social justice education literature thus far. Critical theories, in particular, make this challenge explicit, in their efforts to examine the nature of truth and the way knowledge is constructed (Ladson-Billings, 2001). Critical Race Theory challenges systems of knowing which benefit some while disadvantaging others (Ladson-Billings, 2001).   In their description of the need for Critical Race Theory, Gay & Kirkland included the "need to develop deeper knowledge and consciousness about what it is to be taught, how, and to whom," (2003, p. 1).

In sum, we do know that the nature of our knowledge construction matters to social justice, and necessitates unpacking, in adult professional learning. We know that "strong cognitive development is also enhanced when children develop curiosity, openness to multiple perspectives, and critical-thinking skills," (Derman-Sparks & Edwards 2010, p. 17). Participation in processes of learning, as more than depositees, and making meaning, enables students to better embrace and take action for democracy. After all, "students who have a keen understanding of how knowledge is constructed, how it reflects both subjectivity and objectivity, and how it relates to power, will have important skills needed to participate in the construction of knowledge that will help the nation to actualize its democratic ideals" (Banks & Banks, 1995, as in Banks, 1996, p. 84). This type of dissemination resonates with the moral education that Dewey described in 1893 "because the child is not adequately aware of his specific self" (Dewey, 1893, p. 656) therefore guidance in how knowledge relates to individuals is

preeminent. What we don't have a comprehensive understanding of, is how this knowledge examination applies to, and is applied in, early childhood contexts. For example, we don't have a literature base referencing ways that knowledge is handled or constructed in preschool programs, or who the knowers are, and how this early understanding of who the knowers are might impact the research-supported need for unpacking in adulthood.

In this section, I have cited a shared call for contemplative learning, and its relevance in preschool contexts and social justice education. Next, I will focus on deconstructing particular pedagogic practices for reflective inquiry in the literature, since "teaching creates the infrastructure of the art of the impossible" (Battiste, 2013, p. 175).

Theme 2: Reflective Inquiry Pedagogies

Below I deconstruct three pedagogical sub-themes that practice calls for contemplative education for social justice—those embedded in indigenous pedagogies, those reflected in Freedom Schools from the U.S. Civil Rights movement, and those emerging forms of "critically conscious pedagogy". Then, in the following section, I note ways that they merge with nature-based literature and practices.

Indigenous pedagogies. Indigenous pedagogies bear particular characteristics applicable to explorative, reflective learning in the natural world. Based on ways of knowing that are concerned with intrapersonal wellbeing, Indigenous pedagogies place great meaning on the learning process rather than product or outcome. Specifically, "Indigenous pedagogy accepts students' cognitive search for learning processes they can internalize, and Aboriginal teachers allow for a lag period of watching before doing" (Battiste, 2013, p. 179). This statement emphasizes trust in, and value for, student autonomy in their searches for meaning in the learning process.

Each learning journey holds purpose, as,

Indigenous peoples continue this path of discovery of the inner space that provides an

implicit order of reality and its sources to comprehend life, residing in various outcomes

such as the Cree call *mawatowisowin*, "the capacity to connect to the life force that

makes anything and everything possible" (p. 110) or *netukulimk* meaning, in Mi'kmaq, a

lifestyle that protects the whole and seeks well-being, (Battiste, 2013, p. 160).

In this description, each individual is called to reflect within their learning in order to seek whole

learning. It is up to individuals to unearth their role with life. Learning cannot be socially

reproduced in this call, and indeed interrupts social reproduction, as it is a sensory process from

within, enabling "the greatest discoveries in their land, their spirituality, and their purposes,"

(Battiste, 2013, p. 160).

Pursuits of *mawatowisowin* or *netukulimk:*

required deep introspective learning and attention, not only to the teachings of elders

and to the ancestors, but also deep connections to how one is present with oneself.

Because both of these foundations were important learning, it required maximum non-

interference in one's life journey, allowing each person to develop naturally into their

giftedness and wholeness. Teaching, then, was nonintrusive and subtle, and reflected

the cultural values and wellbeing of the community (Little Bear, 2000). (Battiste, 2013,

pp. 160-161).

These ways of learning, developing, and knowing are in profound contrast to Common Core

standards of performance and/or achievement that states are now adopting. Indigenous

pedagogies reflect "the rich diversity in humankind today in terms of knowledge, skills, talents,

and heritage," unlike the increasingly standardized, monocultural pedagogy present in public

education today (Battiste, 2013, p. 161).

Freedom Schools. Freedom Schools grew out of the Civil Rights Movement "to provide

an educational experience for students which will make it possible for them to challenge the myths of our society, to perceive more clearly its realities, and to find alternatives, and ultimately, new directions for action," (Howe, 1987, p. 10). Intended for high school students, Freedom Schools opened their doors to "'children" ages three to twenty-three," turning no one away, (Howe, 1987, p. 6).

In Howe's (1987) scholarship on Mississippi's Freedom Schools' pedagogy, she emphasized the Freedom Schools' curriculum's purpose, as not "to impose a particular set of conclusions," but rather, "to encourage the asking of questions, and hope that society can be improved" (p. 10). Howe also distinguished the role of a Freedom School teacher—as a student among students, from that of a conventional information pourer. She underscored that the Freedom School teacher is "to be present not simply to teach, but rather to learn *with* the students" (Howe, 1987, p. 4). While originally framed with adolescent learners in mind, the same principles may apply to educational processes aimed at much younger children, as in research that explores any ways that 3-5 year olds are encouraged to ask questions and to locate circumstances where "a particular set of conclusions" is not imposed on the young children (Howe, 1987, p. 10). The reason for this type of encouragement with open-ended results is the "hope that society can be improved," (Howe, 1987, p. 10).

Emerging critical conscious pedagogy. Emerging social justice leadership pedagogy responds to previously compiled calls for contemplative education, as necessitated in Critical Race Theory, and made by Billings (2001), Dantley and Tillman (2006), and Freire (1970). One particular emerging pedagogy, *"critical consciousness"* development, includes an ongoing unpacking process of deeply seated learning to reveal ways that adults have roles in maintaining and perpetuating inequities, (Freire, 1970; Gay & Kirkland, 2003). This approach in adult learning in order to mend educational inequities is a process of persistent awareness of

one's presence in our collective reality that benefits some and disadvantages others (Freire, 1970; Gay & Kirkland, 2003). The emphasis on the need for both self-reflection and self-actualization in critical consciousness development prompts an impetus to examine ways in which we frame and treat contemplative, reflective learning from an early age. Adults who are working to develop this are encouraged to engage in self-reflection about their own narratives, autobiographies, experiences, and about the ways they've come to know the reality that they know (Gay & Kirkland, 2003). This development can only happen via inside-out examination, and not from acquiring skills from other "knowers". In this way, critical consciousness development is similar to both Indigenous pedagogies and the Freedom Schools pedagogy. In all three pedagogies, individual presence and reflection are required, and conclusions cannot be imposed by someone else.

Once again, while framed with adult learning in mind, the basic ideas present in this approach to pedagogy can be extended to the teaching of young learners in preschools, though not necessarily assuming or conveying that preschool children can or should develop critical consciousness. This connection to preschool education, rather, helps to understand early childhood *packing* in terms of its application to adult self- and world-view *unpacking*. The emerging pedagogy for critical consciousness development suggests that social reproduction pedagogies contribute to this need. Critical consciousness development pedagogy matters for us to make good sense of the calls for universal preschool. Considerations for the nature of the learning process, dichotomous roles for student and teacher, and how social reproduction of systemic knowledge is maintained or disrupted, should be taken. It's noteworthy to reiterate Freire's (1970) notion that the more students are required to store deposited information, the less capable they are at developing critical consciousness—supporting such deliberations about universal preschool. In other words, simply stated—the more Common Core Standards, currently being adopted by states, required for students to achieve, the less they are able to

discern their own presence in learning and in social roles during learning.

Theme 3: Supports and Reflection in Nature-based Learning

In line with various theories of alternative education over the years, and also a dominant strain of thinking about science education, the natural world has long been thought of as a possible learning environment that complements, or can even replace, the typical formal learning environment within classrooms and school buildings. In this view of education, nature can significantly impact, and act as a catalyst for, learning. Expanding on the notion that nature inspires creativity by demanding visualization and full use of the senses, studies about children in nature are particularly instructive in this regard (Louv, 2008). One of the first judgments Louv (2008) made in his writing about children in nature was that being in nature is "about *doing* something, about direct experience—and about not being a spectator" (p. 15). When children are actively doing, they are less likely to be filling depository roles, as described by Freire (1970). Nature is a learning catalyst and "presents the young with something so much greater than they are; it offers an environment where they can easily contemplate infinity and eternity" (Louv, 2008, p. 98).

In addition to being intrinsic sites for reflection, natural settings have been found to promote more pretend play. This is a key feature about natural settings that has particular relevance for preschool education. Louv shared a finding from one study of children in various schoolyards, that "a more natural schoolyard encouraged more fantasy and make-believe play in particular, which provided ways for boys and girls to play together in egalitarian ways" (2008, p. 88). These forms of egalitarian play support two conditions of Allport's (1954) anti-prejudice curriculum of Nature of Prejudice Theory: 1) "equal status" between young children, their peers, and adults, and 2) "cooperation rather than competition", in a nature preschool.

One study observing children in play areas found that when "children used more fantasy play…their social standing became based less on physical abilities and more on language skills, creativity, and inventiveness. In other words, the more creative children emerged as leaders in natural play areas," (Louv, 2008 p. 88). This is an interesting finding to think about in terms of change agency in social reproduction. The canvas of natural settings, to imagine and be creative, enabled different leadership characteristics than those typically emerging from more manufactured play settings. Louv noted that another study, though small and in a relatively extreme setting, found that "children in nature kindergarten were found to be more alert, better at using their bodies, and significantly more likely to create their own games" (2008, p. 88). This trait of creativity nurtured in natural settings is not one that is nurtured in social reproduction sites.

A significant distinction to note is Louv's interpretation of nature-based experiential education as distinct from environmental education. He distinguished experiential education as teaching "through the senses in the natural world" from environmental education, which "focuses on how to live correctly in the world," (Louv, 2008, p. 203). This distinction is meaningful to research on preschool education and its social justice dimensions, as the design and practices of nature-based education can vary substantially. In other words, for example, if one nature-based-preschool's pedagogy reflects sensory engagement and contemplative learning, it does not suggest that every nature-based preschool will do the same. Another nature program may instead reflect more of a banking pedagogy where students receive deposits about correctness from the knowers (Freire, 1970). This interpretation also infers that nature-based pedagogies may embody an ethnocentric development "outcome", treating early environmental education as preparation, rather than sensory engagement, (Rogoff, 2003).

Theme 4: Relevance of Contemplative Pedagogies for Preschool Students

In her book about the largely unexamined years between birth and age five, Gopnik proposed that, "in some ways, young children are actually smarter, more imaginative, more caring, and even more conscious than adults are" (2009, p. 5). Her writing detailed the necessary purpose of childishness in/to our human existence. She argued that children "are actually more conscious than we are, more vividly aware of everything that goes on around them," (p. 17). It's important to think about this theory when we look at the systems we set up, namely universal preschool, to prepare children for the world that we adults are conscious of. While 3-5 year old children's demonstrations of their thinking may not echo modes we are accustomed to in education, "we know that even very young children constantly think about future, past, and present possible worlds. And we know that this ability gives us distinctive evolutionary advantages" (Gopnik, 2009, p. 31). The potential that play, pretending, pursuing curiosity, and space to think—cannot be underestimated. Therefore, neither can designs or practices providing these opportunities.

Underrepresentation in philosophy of women and people of color—particularly women of color, and infants, children, and their families—has been identified in scholarly work (Collins, 1990; Code, 1991; Gopnik, 2009). In some ways, early childhood education and investigations of it offer an ironic parallel that Code (1991) elaborated, "everyone can be an expert about women—about what they are and what they can be or do—except women themselves," (p. 177). At the same time, preschool can make opportunities available to children to be experts about "what they are and what they can be or do". Early childhood scholar Derman-Sparks (1995) supported this when she elaborated a disconnection between preschool curriculums and development by stating, "too many early childhood programs ignore current research about how children develop identity and attitudes" (p. 17).

In their work, Derman-Sparks and Edwards (2010) described the need to create an anti-bias learning community through positive interactions with children, because, as they said,

"children's daily interactions with their teachers and other adults are at the heart of anti-bias education," (Derman-Sparks & Edwards 2010, p. 32). Here, they emphasize the need for adults to respond positively to children's curiosity. After all, "the majority of children's questions about their own and others' various identities and appearance reflect their desire to make sense of the world," (Derman-Sparks & Edwards 2010, p. 33). While Derman-Sparks and Edwards devoted a great deal of their book to setting up an anti-bias classroom environment, research can also seek to better understand in what ways, if any, nature and the outdoors might apply to anti-bias education. The literature of the Reggio Emilia approach to early childhood education applies here, as its inspiring emerging approaches in nature preschools (Kenny, interview, February 2014). The Reggio Emilia approach, and emerging variations of, includes child-led direction, curriculum, and inquiry, where teachers are there to support children and merely ask questions (Edwards, Gandini & Forman, 1993).

Examination of the ways preschools' curriculums and pedagogies employ asset- or deficit-lenses for how early children's instincts, curiosities, and knowledge are reflected in design and practice, is necessary in order to better inform processes for defining and implementing "readiness" objectives (Gopnik, 2009; Gay, 2000). Rogoff (2003) looked at the concept of a "*single* desirable 'outcome' of development" as an ethnocentric one that "comes from a particular way of viewing childhood: as *preparation* for life" (Rogoff, 2003, p. 23). By attempting to locate opportunities when children's curiosity and critical thinking skill building are supported, this study focuses less on outcomes, and instead more on a desirable process of the ways children are encouraged to be engaged knowers in a process of inquiry. Therefore, this study also considers ways of viewing early childhood education as other than, and beyond, "preparation for life" (Rogoff, 2003, p. 23). For instance, Gopnik (2009) advised that preschoolers' innate desire to play "reflects the most sophisticated, important, and characteristic human abilities," (p. 71). A conversation about the critical significance of childishness and the

meaning of childish play was not a part of my own formal elementary teacher training, nor that of most other new teachers.

Implications for Research on Nature-based
Preschool Programs

Bringing together the threads of thinking in the bodies of research I have reviewed above provides a powerful idea set guiding my examination of nature-based preschool program's design and practices. To accomplish this, my research looks for opportunities that 3-5 year olds are given to be knowers—depositors, rather than "depositories", for information about themselves and the world (Freire, 1970). This means my research will consider when—and what kinds of—directions are given to children, as well as what kinds of encouragement, if any, children are given to be curious, to ask questions, and/or to follow their childish instincts. Specific to the first literature theme, this research makes space for learning about "what it is to be taught, how, and to whom" during some of the earliest experiences in education (Gay & Kirkland, 2003, p. 1). Providing such space can complicate conversation about archetypes for social justice education.

This case study has also sought out parallel practices of Indigenous pedagogies in the selected nature preschool by looking for evidence of both or either *mawatowisowin* or *netukulimk*. To do so, my research has concentrated on ways that learning is reflected as either a process of searching for individual meaning or as banking information deposits. Precisely, I have focused on what kinds of language are used with 3-5 year olds, and on what ways teachers and students participate in learning. An implication, then, is to offer tangible evidence for ways a preschool's design and practices reflect multicultural or monocultural education.

Additionally, this research focuses on encouragement, supports, and opportunities for free play. Thus, this research offers a better understanding of students' opportunities to explore and play freely, within various practices or structures in the preschool's design. This freedom matters because "the evolutionary outcome of this uninhibited exploration is that children can

learn more than adults can," (Gopnik, 2009, p. 73).   Afterall, pretend play "turns out to be among the most deeply functional human activities," (Gopnik, 2009, p. 73).   For example, "the three-year-old pretending to be a fairy princess isn't just being adorable and creative. She's also demonstrating a uniquely human kind of intelligence," (Gopnik, 2009, p. 46). This holds meaning since, "it's because we know something about how events are connected in the world that we can imagine altering those connections and creating new ones. It's because we know about this world that we can create possible worlds," (Gopnik, 2009, p. 46). Imaginary play reflects our human capacity for change (Gopnik, 2009). Designs and practices that support children's capacities to imagine and pretend reflect opportunities to disrupt social reproduction. Particularly, "pretending involves a kind of present counterfactual thinking—imagining the ways things might be different," (Gopnik, 2009, p. 27). Counterfactual thinking is a way to change the world, as we know it. Thus, an additional implication is a conceptualization of an educational practice that disrupts the "school-as-factory" model in social reproduction (Levine, 1995).

In this counterfactuals theme, this study also responds to Grant's (2012) charge for a "social justice vision of education" by seeking to locate early opportunities and practices for the "critical cultivation" of "flourishing lives" (Grant 2012, p. 913) in this selected preschool. By looking for supports for pretend play among 3-5 year olds, I have looked for ways that "the notion of *paideia*, the critical cultivation of thinking, curious, complex citizens who (re)create democracy" (Grant 2012, p. 913) is or is not evident in the selected preschool program. This evidence—or absence—of *paideia* also discerns whether the program's design and practices help maintain or disrupt the school-as-factory model of social reproduction (Levine, 1995). A final implication, in other words, is greater insight about concrete ways that especially young children's knowledge and capabilities are nurtured and supported or dismissed, therefore enabling disruption or maintenance of social reproduction.

Chapter 3:

Design and Methods

Qualitative research methods, as opposed to quantitative methods, are appropriate for this study because the goal is to better understand perspectives and practices around children's knowledge (Glesne 2011). In this case, the research will look for opportunities that children are—or are not—given, and why, to allow for the process of critical thinking development. Such information requires "engaging in systemic inquiry about [a] practice" (Merriam 2009, p. 1), is not easily quantifiable, and instead is meant to contribute "to a greater understanding of perceptions, attitudes, and processes" in the social justice and early education fields of study (Glesne, 2011, p. 39).

A qualitative, critical case study is relevant for this study since this method is "particularly useful for studying educational innovations, evaluating programs, and informing policy," – all three potential missions for this research (Merriam, 2009, p. 51). In other words, as this study seeks to better understand the practices and pedagogy of a pilot nature preschool program in order to inform policy makers, a case study is a strong fit. In contrast to a critique of qualitative inquiry that general knowledge has more value than this "content-specific knowledge", Merriam reminded us that "context-dependent knowledge is more valuable" since universal knowledge is not applicable to our subjective nature as humans (Merriam, 2009, p. 53). As humans, all researchers have innate, subjective attributes that affect the research process in variable ways, and qualitative research brings attention to these perspectives (Code, 1991). In other words, at the heart of any real objective knowledge lies subjectivity from multiple knowers, and qualitative research invites this subjectivity to be transparent.

In order to address my own subjectivity, I have introduced my positionality in this study, as explained in Chapter 1. Throughout this process, transparency of my process and

circumstances has been imperative. I attempted to "discuss what documents, people, or places were unavailable to" me (Glesne, 2011, p. 212). Keeping close records of everything that I did, including leaving a paper trail, was important to reflect my research methodology and reliability.

Setting and Participants

I've selected a pilot nature preschool program for this qualitative research case study. The preschool serves students ages 3-5 and follows a typical nine-month school year. My selection of this nature preschool site was based on the teachers' practice of writing post-class, detailed 'lesson plans', after class sessions finish, rather than before. This selection criterion was intentional to help identify opportunities, in 'designed ambiguity', for preschool students to engage in knowledge and learning in a model not built around "banking" (Freire, 1970). Considering the universal teaching concept of lesson plans, Cochran-Smith (2004) claimed "lesson plan assignments imply that both planning for teaching and teaching itself are linear activities that proceed from a preplanned opening move to a known and predetermined endpoint" (p. 47). She argued that this structure implies the need to bank information nuggets in every lesson as an instructional mission for student teachers (Cochran-Smith, 2004). A program that practiced more flexible curricular plans and outcomes was a key criteria item for this study. This flexibility enabled me to better understand ways that this type of structure was practiced and to look for ways that this flexibility aligned with social justice education.

My role as a parent of an alumnus of this preschool allowed for convenience sampling as well as prior knowledge of some of the program's design and practices. Entering this case study, I had previously met one of four interviewees. Three interviewees that were affiliated with the preschool were unknown to me prior to my research.

The preschool serves a total of 36 students ages 3-5 and follows a typical nine-month school year from September through June. Three sessions of classes each have an enrollment

of twelve students. Current enrollment procedures guarantee placement for returning students and their incoming siblings, and place remaining families in a lottery. Preschool sessions run Monday, Wednesday, and Friday mornings from 9:00 AM-12:30 PM; Tuesday and Thursday mornings from 9:00 AM-12:30 PM; and then Tuesday and Thursday afternoons from 1:30-4:00 PM.

This research took place during the school year in the spring of 2014, over a five-week period, while observing multiple half-day, morning preschool sessions. During that time, I interviewed four participants for a total of six interviews. Interviewees included (all of the) two preschool classroom teachers: one White male and one White female, a White female classroom volunteer, and a White female program site supervisor. All four interviewees had been with the nature preschool program for 18 months or less.

Data Collection

I have utilized multiple collection methods that permitted me to triangulate my findings, including outdoor and indoor observations, staff interviews, and documents. As a critical case study, my study looks only at one particular nature preschool, and the findings cannot be generalized across other settings.

Observations included practices around teaching and learning, curriculum and instruction, student-to-student interactions, teacher-to-student interactions, and general observations of school days. Throughout the course of a five week timeline, I kept extensive fieldnotes as I (1) observed typical class days and teaching practices reflected, and (2) focused on the opportunities students both have and take to examine the nature of knowledge construction and potential connections to social justice. By focusing my observations on both the teachers and the students, I was able to gather data from multiple sources and conduct cross-sectional checking of teacher perspectives with reflected practices with students. No data were collected about individual students in the program for this case study.

I also conducted two interviews with each teacher, individually, to gather teachers'

perspectives about their work at the preschool. In addition, I interviewed a site supervisor and a

yearlong classroom volunteer, individually. Interview questions inquired about ways students

spend their time at preschool, how decisions about structures—and non-structures—are made,

and about pedagogy and theoretical paradigms. Interviews served as one way to check back

with teachers about observations and questions based on direct observations. I recorded all

interviews, transcribed them, and asked my interviewees to review the transcriptions for

accuracy (Glesne, 2011). The first interview with each teacher occurred before my

observations, and the second interview with each teacher happened halfway through my five

week observation timeline. This timeline enabled me to observe, again, for questions I sought

clarification for about design and practices. My third data source was documents available at

the preschool. Document analysis included parent newsletters and curriculum planning

templates. This research study's data collection methods are representative of three of the four

methods that "qualitative researchers typically rely on," (Marshall & Rossman, 2006, p. 97).

Nature and Focus of Observations

Research observations included: practices around teaching and learning; curriculum and

instruction; student-to-student interactions; teacher-to-student interactions; staff interactions and

conversations during informal and formal meetings; and general observations of school days.

Throughout the course of this 5 week timeline, I: (1) observed and interviewed staff, and (2)

observed the ways in which students spend their time at preschool, and (3) focused on the

opportunities students both have and take to examine knowledge construction, knowers, and in

what ways these opportunities are connected to nature. My task for these observations was to

collect as many observations as I can in a field notebook, as Glesne reminded us, "you never

know when or where you will see something, talk with someone, or have a thought that you

have that you want to record" (Glesne, 2011, p. 72). I followed Wolcott's four additional "strategies to guide observations: (1) observations by a broad sweep, (2) observations of nothing in particular, (3) observations that search for paradoxes, and (4) observations that search for problems facing the group" (Wolcott, as in Glesne, 2011, p. 71). By focusing my observations on both the teachers and the students, I was able to gather data from multiple sources, and conduct cross-sectional checking of teacher perspectives with reflected practices with students. To investigate the ways young students' capacities for knowing are reflected in a preschool, my research paid close attention to the ways questions and answers between teachers and students were handled. My research looked at who was reflected as having knowledge, or in other words, the ways knowledge came from the teachers, or was encouraged to be developed by children.

Nature and Focus of Interviews

Two interviews with each teacher allowed me to gather teachers' perspectives on the opportunities that are provided for children to be curious, to engage in inquiry, and to build skills to think critically. I thought "of interviewing as the process of getting words to fly" in order to truly be the researcher wanting to learn from the interviewee (Glesne, 2011, p. 102). Interview questions inquired about ways students spend their time at preschool, and reasons that their days are structured in these ways. Interviews served one way to check back with teachers about observations and questions based on direct observations, and to learn directly from the teachers about the reasons behind their practices. My priority during interviews, alongside conducting my research, was to be mindful of my role as a respectful learner (Glesne, 2011). I audio-recorded all interviews, transcribed them, and could defer back to interviewees for accuracy (Glesne, 2011). The first interview with each teacher happened before my observations, and the second interview with each teacher occurred halfway through my five-

week observation timeline. This timeline enabled me to observe, again, for questions I sought

clarification for about design and practices.

The interview questions I'd selected for this study represented the six types of questions

that Patton (2002) suggested: 1) experience and behavior, 2) opinion and values, 3) feeling, 4)

knowledge, 5) sensory, and 6) background/demographic questions (Patton, as in Merriam,

2009, pp. 96-97). I intentionally refrained from using social justice education language and

terminology in all of my interview questions, in order to not lead answers or findings.

Nature and Focus of Documentary Data

My third data collection method was to look at documents available at the preschool. I

anticipated some of these documents to include students' work and/or newsletters regarding

school updates or happenings. I looked for any documents left behind and paid close attention

to the physical environment of the classroom – including the lack of documents that might be

the case in outdoor education. In collecting these types of data, I was able to address my

research questions with additional perspectives, presence at natural setting events, and actual

documents used within this context.

Data Analysis Approach

To analyze the data from my research, I looked for patterns, or codes, that began to

emerge from my interview transcripts, document observations, and field notes from

observations. My purpose in doing so was "making sense out of the data," (Merriam, 2009, p.

175). Codes were "the starting point from which [I'd] go on to 'look for patterns, make

comparisons, produce explanations and build models'" (Gibbs; Glesne, as in Glesne, 2011, p.

196). Looking at my information over time, particularly my observation field notes, allowed me

to look for validity within my coding. My intent in identifying codes and patterns was to connect

the data collected, my interpretations, and the literature, and to ultimately develop findings and

meaning for my research questions and qualitative case study.

In my thesis process, I concurred that "data analysis is the most difficult part of the entire

process," and clung to any preliminary comments, speculations, and thoughts I had recorded

during data collection (Merriam, 2009, p. 175). After my initial "open coding", a sort of puzzle

play ensued. The puzzle I was trying to piece together had no visual image on the box, and the

pieces were malleable—able to be re-shaped depending on what I saw more or less fitting

together. I simultaneously disaggregated codes and dismembered puzzle pieces, while

blending codes and creating seams between pieces. My goal was to generate "emergent

categories" that were especially rich and relevant to the purposes of my research, (Merriam,

2006, p. 185). My data organization procedure was daunting, challenging, and playful at once.

The picture on the puzzle I was working on eventually started to come into view, and

about twenty categories that had emerged became eight, and further condensed into five, the

inferred categories that provided an overarching organization for my findings.

Design Limitations

Investigating a preschool's design and practices, I have largely examined curriculum and

instruction. My research has not enabled me to better understand 3-5 year old children's

perceptions and/or performance within this design and structure. Additionally, as a short-term

study, my research did not enable me to examine or find long-term design and practice effects

on these students' perceptions or performance beyond their preschool. I was not able to

conduct research throughout the school year, but rather during the final five weeks of the school

year. Investigating a preschool program's pedagogy at the end of the school year came with

advantages and disadvantages. On one hand, I was getting a picture of well-established

routines and practices. On the other hand, the tail end of the school year provided comfort

zones and relaxed routines that may not have reflected the structures or variation of practices that another time of year might have.

I desired and attempted to also interview the program director. However, when approached, this individual was in the midst of her final two weeks with the program, as she was leaving the position, and she declined participation in the study. By securing and conducting six in-depth interviews with the four individuals most directly involved in the preschool program, this case study offers a well-rounded perspective about its design and practices.

As a critical case study, my study looks only at one particular nature preschool, and the findings cannot be generalized across other settings. This study is limited in its capacity to whether these particular findings are an anomaly in nature preschools. The paradigms, practices, and reflections of this nature school might be due more so to this circumstantial teaching, administration, and volunteer staff, than nature preschool programs themselves.

Chapter 4:

Findings

Data analysis for this qualitative case study generated five overarching findings. The

selected program's design and practices were found to reflect or support elements of social

justice education in five ways. The first regards the catalyst for learning interactions in this

program model, which is nature. Both within and without walls, nature is identified as more than

the setting, and as the impetus, for curiosities, imagination, and discoveries. The second finding

refers to a structure of trust and autonomy for students. The third theme that emerged was

engagement in play—encompassing imagining, pretending, and the counterfactuals promoted in

them. The fourth finding includes teacher modeled learning. Finally, the fifth finding involves

the students as reflective researchers.

This narrative of findings will not include actual names, but pseudonyms for two

teachers: "Teacher Fern" and "Teacher Doug", site supervisor: "Brook", and classroom

volunteer: "Millie". Any student names I have used in the findings are pseudonyms as well.

Finding 1: Nature is the Catalyst

In addition to comprising the setting and the title of this preschool, nature was identified

as the catalyst, or stimulant, for teaching and learning practices. Nature presented itself as the

primary reason for the preschool's inception, location, and curricular design. Families enrolled

preschoolers here because they were looking for a nature-based backdrop and theme for

learning. As Teacher Doug stated, "I think there are so many great things about this

program…just the ability to go right outside and creating a safe space in nature is something

really cool" (Interview, May 2014).

This nature preschool is situated in a wooded wetland in the middle of a city in the Pacific Northwest. Woodchips and wood planks line the meandering paths within the tree-filled woods, among spongy swamplands, ponds, and nearby river. The few buildings on site make up the environmental education center that the preschool is a part of. Each building is certified eco-friendly, most simulating tree houses on stilts.

Observation fieldnotes describe the scene inside the preschool classroom:

"Upon entering this nature preschool's indoor classroom, I noticed 3-5 year old student-size tables and chairs, and none larger. In this cozy learning space where every inch counts, student cubby shelves filled with tubs of blocks, animals, and puppets and such, line the entrance area. A K-W-L chart about butterflies covers a large portion of one wall. Storage closets compose one wall meeting the carpeted reading area. The windows overlooking the nature slough paths display birdfeeders and often birds enjoying them. In the coveted spaces of the walls not covered by a whiteboard, closets, or windows, there is student artwork" (Fieldnotes).

Perhaps the most significant distinction about the nature-based catalyst was the lack of manufactured settings for learning. Outdoor play during the preschool occurred in organic, natural settings, in lieu of a manufactured play yard embodying designated, constructed equipment or blacktop playgrounds. Nature was the stimulus for the trees that many students were often seen climbing and sitting in, the ample chances to discover and share slug sightings, and for responsive spaces for exploration. It was also a site for trial and error, according to Teacher Fern:

…well there's just so much opportunity for trial and error, when we're playing outside… there are sort of these big branches that have fallen down, and kids, you know trying to pick one up and it's not really working, or trying to move one and it's not really working. You can just see them figure out how do I move this giant branch? And

sometimes…we'll step in and say, what if you ask someone for help? Or, I wonder if

Madi could grab that other end? …We have one child who… you'll see him outside

working, working at a certain stick and he'll find the best way to break it (Interview, May

2014).

For a large portion of the preschool day, the setting encompassed a forest of trees,

paths, woodchips, a blooming canoe garden, wetlands, and a pond—rather than walls, colorful

bulletin board borders, computerized screens, posters, and collections of learning

manipulatives. Background sounds heard were birds, an occasional airplane, glimpses of

highway hum, and sometimes a distant machine running (maybe a chainsaw)—and not bells or

loudspeakers. Scents included damp woodchips of forest paths. The outdoor air often had a

slightly balmy, cool feel to it. Intermittent passers-by along the wooded wetland trails could

have noted preschool students moving in nature, and did not witness students completing

worksheets, facing computer screens, or engaged in formal seatwork.

Nature was the reason senses were engaged during learning times outside. Nature

provided concrete opportunities to experience perspective taking, like looking down from a

walkway in the tree-tops to imagine a bird's-eye view from above. Students actually took on this

perspective by acting out a bird's-eye view and facing the natural ground from above. Nature

inspired nature-connected experiences, play, pretending, exploration, curiosities, and

discoveries. To help understand ways nature merged with preschool, Teacher Fern explained:

Young children…just love to be outside. And you know, kids are so naturally curious,

that when you take them out into the forest, there are so many different things to be

curious about. And you know, one curiosity leads to another, leads to another, and then

they've built up this wealth of knowledge… Kids are just so interested in bugs. Or

they're so interested in mud…they're just so interested in, in learning new knowledge

that you know nature is just a part of that too, (Interview, May 2014).

The themes of nature and sensory did not only resonate outside, as my fieldnotes detail:

It's 9:25 A.M. The preschool opened its doors at 9:00 A.M. The [indoor] scene includes two classroom teachers, plus eleven children (one is absent) engaged at various tables or on the reading carpet listening to one teacher read a story. A fly travels the room as a small junco bird feeds at the suction-cupped window feeder outside. The air inside is somewhat chilly and the classroom's cement floor is cool. The sounds in the room include one teacher's voice reading a book to five on looking students, three students' voices chattering at the foam peanut table, and cereal being poured, by the other teacher, into a container at the back.

Nature was the vehicle driving the themes of the preschool's curriculum. Teachers incorporated, seasonally, what was happening outside the classroom windows with what was explored from week to week. Within and without walls, inside and outside, books, projects, puppets, science table items, leaves, flowers—all reflected phenomena of, or relevance to, nature: an unending, ample source for considering one's place and/or role in the greater collective. Nature was a stimulant that provoked curiosity, reflection, wonder, and discoveries, which will be further detailed in the following findings. This summary reinforces that, "natural spaces and materials stimulate children's limitless imaginations and serve as the medium of inventiveness and creativity observable in almost any group of children playing in a natural setting," (Moore, as in Louv, 2008, p. 87). Multicultural or ethnorelative education for social justice—culturally inclusive, equitable education that does not impose an ethnocentric or dominant paradigm or way of knowing and being—requires all four of the learning elements: curiosity, reflection, wonder, and discoveries, that nature invites and stimulates us to practice (Battiste, 2013; Howe, 1987; Gay, 2000).

Finding 2: Structure of Trust and Autonomy

The second finding in this case study was a resounding philosophical and practiced

theme at this nature preschool—a structure of trust and autonomy for students. I will cite

evidence of this structure using examples about flexibility with time, student choices, organic

academic learning, and flexible outcomes.

Loose Dependence on Time

A loose dependency on time was observable during student arrival and school start time,

activity time, snack time, while getting to a place on the trail, and during opportunities where

micromanagement could flourish—as it so often does in more traditional school settings. In my

multiple observations, I never witnessed a student being asked to hustle up or wrap up her/his

snack time. In fact, students were given time to continue to sit and eat snack for minutes well

past times when everyone else had finished and cleaned up. Regimented windows for snack or

eating time were not strictly enforced here, as is standard in more traditional or conventional

settings.

When the class would set out for outdoor exploration or trail walking, estimated times of

arrival at destinations were observed loosely as well. In his description about choices that kids

make about how the day is spent, Teacher Doug shared,

> …If we were walking on the path…to get from point A to point B, and typically that would
>
> take us like 12 minutes but we stop along the way to see 12 slugs or you know, hey look
>
> at this fiddlehead that is popping up, or you know, let's see how many helicopter seeds
>
> we can pick up. Those are all things that students would suggest and do suggest all the
>
> time and we relish in those moments.

This simple flexibility for moments of joyful discovery can be inferred as the preschool's

embedded encouragement and support to exercise "some of the most sophisticated and

philosophically profound capacities of human nature" (Gopnik, 2009, p. 73).

Students were greeted positively and engaged in learning and/or play choices at

whatever time they arrived. I consistently observed a fluid preschool arrival time frame for

students over a thirty-minute or so period. For example, during my second day of observations

at the nature preschool, the following number of students were in attendance at the noted times

in Figure 4.1:

Time	Number of Students Present (/12 enrolled)
9:00 AM (Preschool Opens)	1
9:01	2
9:05	5
9:15	6
9:18	7
9:30	9
9:34	11

Figure 4.1 Fluid Arrival Times

As Teacher Doug described a typical day for his preschool students, he reiterated the varied

arrival times, stating, "the kids start trickling in for the first 30 minutes," (Interview, May 2014).

While time dictated the skeletal structure of the preschool days, like dismissal, and meeting for

opening and closing circle at relatively established times, it did not dictate much else by way of

student choice.

Student Autonomy with Choices and Opportunities

Students exercised freedom of language and expression, ways of sitting and/or joining

circle time, while playing outside, and with activities inside. After Teacher Doug reiterated

students' varied arrival time window, he reported about a typical day that "the room is set up so

that [the students] can navigate around as they please," and shared the table activities, manipulatives, quiet book area, and science table options available to them to move among, (Interview, May 2014). Amidst his description of the nature preschool's mission, Teacher Doug mentioned, "kids can buzz through the classroom or through their environment at will…if they get bored in five seconds with an activity, they are free to move on and no one is strapping them to a chair and asking them to write out words," (Interview, May 2014).

This reflection of autonomy inside was also present outside. Even waiting at the restrooms warranted several choices and not controls. During observation two, at 10:04 A.M., Teacher Fern led the whole class to the restrooms and suggested, "now's a good time to go potty, use the bathroom, get a drink," in lieu of telling students they needed to do one or the other. At 10:31 A.M., after the class had been playing in an outdoor space along the path, a student said to Teacher Doug, "I have to go potty". Teacher Doug then escorted two students back up the stairs and toward the restrooms building, telling Teacher Fern "I'm going to take Sunny and Amber". During an outdoor free play time in the woods, students utilized five distinct locations for various activities within the play space: in a tree, at the canoe garden, collecting sticks in the brush alongside the trail, digging in the dirt on the path, and running on a perpendicular path. Teacher Doug said this about student autonomy during free play:

> I think free play allows them to kind of sculpt the world around them in the way that they
> want to see it and interact in it… it's really nice to just let kids be kids, and pick what they
> want to do, and let them do it for as long as they want to do it, and come back to it if they
> want to come back to it. You know, if they want to take a break from something, and, I
> think that giving them that freedom is just kind of necessary in our world today
> (Interview, May 2014).

Preschool students exercised freedom of expression. I did not witness any teacher-student exchanges where a teacher corrected a student's language or requested/reminded "thank you" when given something, or "no thank you" to use in place of a scream of

dissatisfaction by a student. Students were provided freedom of language and expression.

Limits existed, though, and were enforced, like when the lights were turned off as snack got

underway, and Teacher Fern declared, "I don't think there's any reason to be screaming," during

my second day of observations.

While students were sitting at tables for snack time, they were even asked where on

their trays they would like foods, "Do you want hummus? Where should I put it? Splat,"

(Teacher Doug, jovially). Additionally, on outdoor trails to play spaces, students were given

opportunities to walk or to run. In practice, one teacher would start walking earlier with the

walkers, and one teacher would wait back with the runners for a delayed start. Teachers sought

and exercised opportunities for student choices consistently. Students exercised ownership

over their travel, choices, and opportunities.

Time and micromanaging energies were not spent editing or reshaping the circle that

students were to be sitting in. For example, during my first observation of "opening circle", eight

students formed a straight line, and three students formed the other side of the 'circle'. No

students were asked to revise their circle or sit in a corrected location. All students were seen

observing and interested in the "live birds nest" that Teacher Fern was holding and asking

students to describe, "what do you notice?"

Organic Academic Learning

Some of my interview questions to both teachers inquired about required and optional

standards, and about lesson plan comparisons between this nature preschool and potentially

more conventional preschools. Teacher Doug described the program's philosophy about

organic skill acquisition:

> …The way education is going right now is kids are expected to have so much, so many
>
> standards complete…have all these like skills going into kindergarten, or going into first
>
> grade…and we don't really push that here. …We're not worried if a kid doesn't hold a

pencil correctly right away, or they don't know all of their letters. You know, we know

that will happen kind of organically (Interview, May 2014).

I was able to witness examples of these types of organic academic learning during my

observations. Frequently, during indoor choice time, a teacher would sit in the quiet reading

area and begin to read a story to 1-3 students. At times, the students requested the teacher to

read, and other times the teacher offered to read to them- including behavior redirection

attempts. While the teacher read aloud on the carpet, all students were free to join, or ignore,

anytime from any location in the classroom. This type of reading was not a coerced

expectation, instead an option driven by natural interest. In one example, a student, Sunny,

was busy at the play dough table while she giggled with the story being read aloud at the

carpeted reading area. She was allowed to enjoy a read aloud and play with play dough in

another location. In regards to students' response to reading aloud, Teacher Doug observed,

"You can start out with two or three kids, and by the end of the book, like half the class is sitting

around you, listening" (Interview, May 2014). Outside at a sensory table, a student engaged in

organic finger math by counting down using her fingers as she played with various materials.

Teacher Fern explained these instances of practice during her first interview:

We still focus on academic skills that other preschools would… except we just get to do

it through the really fun lens of nature, I think, so we're always practicing literature with

our children, we always have books to read about our topic…our circle times are

opportunities for counting or sorting, for sitting and reading with the children (Interview,

May 2014).

Teacher Doug compared his experience with the curricular design and practices at a

more conventional or traditional school setting to the more organic practices here:

…working in a more traditional school setting…there were so many lessons that I had to

kind of pool a lot of resources and materials and set up, and it was well worth it, to give

kids those concrete, like, hands on experiences, but it was definitely like put on the table

and set out for them, versus, uh, a discovery, or you know, still both investigations, but

one was definitely more.

Here, Doug spoke to the deeper discovery and investigation opportunity when students are not

handed a sort of *teacher's anthology* of experiences, and are allowed, instead, to find their own.

The words "set out for them" resonated as a way to distinguish a banking style from an organic

style.

Site Supervisor Brook provided further illustrations of academic learning that happens

more organically, and how these skills remain with students in future years:

What I've seen first hand is that their reading and math scores in kindergarten, first

grade, second grade, are showing that the types of learning that's happening in a nature

preschool are, are concrete and they are lasting…the patterning we do with sticks…how

we write our letters in the dirt, or how we look for shapes in the trees or the bushes…It

might be literacy or math in a different way, but it's reaching a lot of different styles of

learning. And then when you infuse science into every single thing, they realize like oh,

science isn't a class, it's part of our life (Site Supervisor Brook, Interview, June 2014).

One can infer a sense of realness or purpose that precedes the skills students are practicing in

nature preschool. Rather than being recipients of skill deposits, students are allowed to develop

them as they are presented with opportunities in nature, in a *Freire-in* light (1970).

Organic learning is not the exclusive way to learn in this program, however, as Teacher

Doug clarified in his second interview:

In a typical classroom, things are kind of manufactured and often times experiences

don't happen organically. Um, and they don't always happen organically here,

sometimes there's a lot of pushing, but there are lots of opportunities for…those

individual experiences that just kind of happen outside, or you know, along the way

(Interview, May 2014).

Flexible Outcomes

In tandem with organic academic learning practices is a structure of open-ended, flexible outcomes for students. Teachers do not establish set points to get to within activities and learning or play opportunities. For instance, students at the sensory table are not required to complete a specific task, nor are students at the play dough table, painting table, or science table. To illustrate this during outdoor time, during a whole group egg hunting activity outdoors, kids were invited to participate. When one student requested to 'go play' during this activity, he was permitted to. Additionally, students were not expected to perform specific tasks during outdoor time, and were given space to sit and dig in the dirt, on multiple occasions. Similarly, students were given space to sit, or stand, and observe. These flexible plans and outcomes for how students engage in their surroundings demonstrate interest-based learning. Each interviewee spoke about the confidence students develop in learning this way. When not being measured against a standard, and instead being valued for his/her individual interest-based learning process, learning becomes a process of confidence building for students. This provides an interesting comparison to ways that being measured against a standard outcome promote confidence building, or deflating, for students.

Teacher Fern discussed ways that the program's philosophy about flexible outcomes promotes student involvement and directing:

> There are so many ways for them to get their literacy skills built and there're so many ways to do the math, um, I think structuring our curriculum this way makes the children feel involved also. Um, but you know our, our philosophy is based on exploration and free play, so you know, we couldn't really have set things that we're looking for each week, because, that would kind of go against what we're doing (Interview, 2014).

"Let Them"

An overall theme of "let the kids" shined during my two interviews with Teacher Doug, who

used the phrase, "let the kids…" at least twice, and "letting them…" at least twice. He was quoted saying, "I like to let the kids come to me with questions," and "let the kids ask and wonder," and "…really just letting them come up with what they want to learn about," and once more in regards to "letting them" acknowledge their imagination and get comfortable in being imaginative (Teacher Doug, Interviews, May 2014).

It's noteworthy that within this "let them" theme of autonomy, teacher expectations about safety and respect were also clear. The teachers established play space boundaries outdoors with the placement of their backpacks. While students were observed in up to five places at once outdoors, they understood and demonstrated that they are to stay within those boundaries. A behavior was stopped and redirected after a student hit a classmate, and Teacher Fern said firmly, "we don't hit our friends at school," after she moved the student to another location in the room. Teacher signals for cleanup and transition were verbal cues "two minutes" and "five minutes, and with lights turned off.

A parent newsletter communicated the sequence of events from the week it narrated. In it, parents were given details about the curriculum and open-ended plans that their children were a part of. A component evident in the preschool program is communication to the family, where specific pedagogical and framing language is utilized to explain the process of the learning in the day. For instance, this excerpt from one newsletter narrates the way learning can be open-ended and meander:

> With such beautiful January weather, we stayed outside to play on the trail. The children
>
> love to join in each other's imaginary games of chase and animals. We had a few chefs in
>
> our outside play, using puddles and garden soil to make hot chocolate and mud pies. Other
>
> children scooped the water into cups and gave the forest plans a drink. (Parent Newsletter,
>
> January 2014).

This description is an excerpt from this newsletter in Figure 4.2:

Dear "Garden Bug" Parents:

This week we continued learning about ice, enjoying the 50 degree weather very much.

The children's first task on Tuesday was to melt a giant ice cube – their tools were salt, water, pipettes and determination. Quite a few of our kiddos stayed until the end, until the cube was nothing more than shards of ice.

At our morning circle, Fern posed the question: do you like summer or winter better? The children answered by writing their name or letters on the board under the appropriate season. Turns out, it was an even split between the two seasons. We learned that summer is better for swimming in grandma's pool, but that winter is best for playing in the snow.

Outside, the children were given large containers to collect nature treasures. They found lichen, soft leaves, small sticks and stones to put inside of their jars. We then
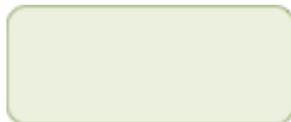
Our frozen nature collections turned out so cool!

filled the containers with water and put them in the freezer. These will become melting ice sculptures for our class on Thursday. With such beautiful January weather, we stayed outside to play on the trail. The children love to join in each other's imaginary games of chase and animals. We had a few chefs in our outside play, using puddles and garden soil to make hot chocolate and mud pies. Other children scooped the water into cups and gave the forest [plants] a drink.

Figure 4.2 Parent Newsletter Clip (actual names omitted)

Teachers voluntarily align curriculum at the nature preschool with the state standards for Kindergarten. Curricular planning templates reflect this voluntary addition as well as flexible outcomes (Appendix A & B). For example, children are not measured on ways they engage or do not engage in the loosely planned curricular activities. In this weekly theme instance, displayed below in Figure 4.3, the outcomes for each of these activities related to an apples them are flexible—or not determined:

Parachute with helicopter seeds	Forest berry picking (NOT eating); apple rolling	Catching raindrops
Fruit dissection and prediction: What will we find inside?	How can we prevent an apple from browning?	Apple/fruit taste test

Figure 4.3 Weekly Theme clip, Appendix A

Figure 4.3 represents activities, like "Parachute with helicopter seeds", that are open-ended to students. They are provided opportunities for thinking, experiencing, and questioning. These activities are not nuggets of information being deposited. They are engaging the senses and are sources of curious discovery.

Every activity from the week at Nature Preschool offered choices within it. Students who were interested were invited to continue the ice activity for its longevity. Students chose their preferred season, then items for their nature treasures. Each activity embodied flexibility and students were able to navigate their own outcomes in the process.

This practice of flexible outcomes for students suggests that students' individual play and

learning processes, and experiences, are validated, and are assets in education. This designed structure of trust in, and autonomy for, students indicates an asset view toward students and their capabilities to learn. Trusting students to explore what they choose, play—or not play—in ways they choose, and learn in ways they choose, demonstrates a perspective that students are more than empty vessels in need of knowers' deposits (Freire, 1970). An autonomous learning structure endorses decolonized education and reflects a lack of cognitive imperialism (Battiste, 2013). Student-led choices, learning, outcomes, and time management imply self-awareness on the teachers' part to allow children to be knowledge constructors, rather than be edited (hooks, 1994; Counts, 1932). Additionally, such freedom in learning and learning outcomes signifies disruption of social reproduction, according to Social Reproduction Theory (Fitz et al., 2006).

Finding 3: Engagement in Play and Exploration

The third finding in this case study was what was witnessed most often during preschool days: engagement in play and exploration. The first 45 minutes of every class day was designated time for exploration and/or play. Teachers made available a sensory table located right outside the door, two activity tables—such as art supplies and play dough (that Teacher Fern cooked earlier that morning), as well as bins of blocks, puppets, animals, and a quiet book area. Some mornings, Caspar Babypants' jolly kids' music would be playing in the background during arrival time. This musical mood and these opportunities for engagement began the day. The most frequent sounds heard indoors, besides the background music, were both children's and teachers' excited and giggling voices. Then after a brief morning circle time, students were taken outdoors for exploration and playtime there. Upon return to the inside, following a snack, indoor exploratory and playtime resumed before closing circle and dismissal. When asked about what free play allows students to do, Teacher Fern answered with individual as well as social benefits:

I think free play just allows them to synthesize what we've been learning all year and act it

out; they often do that. And I think free play also allows them to have independence in what

they're playing. Um, we stay in that spot a lot, and so the kids are very comfortable with

where they are. And, have become very familiar with sort of our, you know, our play

resources out there, be it the tools we bring out, or the little forest paths that they've made.

And I also think that free play is important for children this age because they might not be

learning topics that we've talked about, but they're learning how to interact with each other,

how to stand up for themselves, how to communicate, and so that's an important part for

that, too (Interview, May 2014).

One theory that Teacher Fern mentioned as being influential for her was "that sort of

Montessori-esque just because the idea behind that is for children to do real work, and that their

play is real work for them…just those ideas, I think, really inform what I'm doing," (Interview,

May 2014).

The concluding page of a weekly parent newsletter expressed this playfulness as well,

"And of course, the children enjoyed digging and creating in the forest," in a caption among

photos of preschool students sitting and playing on forest paths. Another page of the same

newsletter featured two photos, each with one student dancing in the forest, with an

accompanying caption, "Kelly and Sunny created a dance theatre!"

Students and Teachers Play Together

Notably, both students and teachers were consistently engaged in play and exploratory play,

indoors and outdoors, every day. When I say engaged, I mean actually playing. It was

consistently evident in the teacher's actions that they were not just supervising or editing

student play or pretend times. They were there to engage in the play and to pretend *with* the

students. When inquired about this observed phenomenon, Teacher Fern elaborated:

I see different reasons for me doing it… sometimes one reason is, especially more in the

beginning of the year, is to help children start to engage other children, or just to help them

to start to engage with our classroom materials or our nature play that we do. Um, you

know, other times I engage in the play to help direct it…to kind of help focus the energy in a

certain way, sometimes I do that. I also like to engage because, you know, there are, Doug

and I are clearly their teachers, and they respect that boundary, but I also think it's important

to have a relationship, beyond, you know, teacher and child, and to develop a friendship and

to have fun with each other, (Interview, May 2014).

Ample examples of teachers engaged in play were available for this case study. Students

frequently invited teachers to play pretend, or play in the sensory table, or draw together on the

easel, and the teachers complied nearly every time, unless they were finishing up play with

another student or group. While the rest of the students waited outside for classmates in the

restrooms, I observed Teacher Fern initiate play when she said, "In this little game, I'm an owl.

Maybe I'm the mama owl from this book," and students happily obliged and played along. While

at the sensory table, Teacher Fern was overheard playing pretend along with students, saying,

"time to pour out the marshmallows" to students pretending foam peanuts were marshmallows.

Counterfactuals

In her chapters about young children's imaginations and crucial purposes for pretending

during play, Gopnik (2009) referenced the possible worlds of past, present, and future, called

"dreams and plans, fictions and hypotheses" that we are actually living in, (p. 19). And, she

clarifies that "philosophers, more drily, call them 'counterfactuals'" (Gopnik, 2009, p. 19). Simply

offered, "counterfactuals are the woulda-coulda-shouldas of life, all the things that might happen

in the future, but haven't yet, or that could have happened in the past, but didn't quite" (Gopnik,

2009, p. 19).

The following examples of counterfactuals occurred between 10:20 a.m. and 11:09 a.m. during one observation day. At 10:20 a.m., while freely playing outside, student Amber asked, "Ready to play three little pigs?" Soon after, Teacher Fern played along, "I'm hungry for a pig. Which one should I eat first? Maybe the pig in the straw house?" In a nearby space at the same time, Teacher Doug was overheard playing along with another student while at a pretend door, "…How about magazine subscriptions? I have those too. How about Girl Scout cookies? I have those too."

At 10:27 a.m., three students ran down the trail while one led a song, "who's afraid of the big bad wolf?" Teacher Fern ran to the singing pair, "Are you afraid of me now?" Giggling, singing, then galloping along trails—by all— immediately followed. Teacher Doug responded, "I'm a little afraid of the big bad wolf. He's going to blow my house down."

Twelve minutes later, at 10:39 a.m., Teacher Doug engaged in more pretend play, "We have two sick mountain lions, what are we going to do?" Meanwhile, Teacher Fern was practicing counterfactual play with another pair of students, responding to student Daisy's, "Mom," Teacher Fern replied, "Yes kid Fairy Princess? Oh yes Fairy Princess kid…Here is some delicious moss." Student Daisy responded, "Pretend that we're making our lunch." After student Daisy asked to be called "Izzy", Teacher Fern followed up with, "Izzy, I'll be right back for lunch, ok?" After another student led Fern to the canoe garden for a question, Teacher Fern promptly returned to student Daisy and resumed taking photos of "Izzy" making food on a Frisbee.

One student was in a tree pretending to be a puppy, "aarf, aarf". A group of students began playing Wizard of Oz along a perpendicular path from other classmates by acting out various characters. Student Amber exclaimed, "Fern come here!" Teacher Fern turned to student Daisy, "Daisy, do you want to play Wizard of Oz?" As Teacher Fern relocated up the path to play Wizard of Oz, she inquired to student Hunter, "Hunter, do you know the story of the Wizard of Oz?" Soon after, Teacher Fern complied, "Ok so I'll be the Tin Man." Student Amber

responded, "You'll be the Tin Man and the Cowardly Lion. He'll be the Scarecrow and Wizard and…Fern you are Glinda and Tin Man and Hungry Tiger. I'm Dorothy". To this, Teacher Fern continued to engage, "How come we each have to play three roles and you have to play one?" Student Amber replied, "'Cause you're the most important". Soon after, Teacher Fern played along, "That's what happens. Oil can, oil can, glug, glug, glug". Giggling by the acting group ensued.   Over the course of the next seven minutes, between 11:02 a.m. and 11:09 a.m., students and teachers played "rocketship" and "storm" complete with thunder and lightning. This counterfactual, pretend play reflected how children imagine ways the world could be different.

The concept of counterfactuals is imperative to the research questions in this study, and I found that counterfactuals have a place in both nature-based preschool and in social justice education. Afterall, "counterfactuals let us change the future… we can actually act on the world and intervene to turn it into one or the other of these possibilities" (Gopnik, 2009, p. 23). Since "we can also see evidence for counterfactual thinking in children's play," the link between a play-based nature preschool and the construction of the world, including social world, deserves examination (Gopnik, 2009, p. 27). In summary, because "these counterfactuals let children create different worlds and they underpin the great flowering of pretend play in early childhood…eventually, they enable even adults to imagine alternative ways the world could be and make those alternatives real," (Gopnik, 2009, p. 246).

Thus, while pretend play may appear immature or even useless, it has great meaning and value for our humanity (Gopnik, 2009). As I've cited, this connection was evidenced continuously during the data collection for this case study. This type of pretend play holds the potential to disrupt social reproduction according to Social Reproduction Theory (Fitz et al., 2006).

Hands-on Exploration

One term that all four interviewees used in describing the nature preschool program's purpose was: *hands-on experiences*. Classroom volunteer Millie explained her interpretation, "I think, what I'd gotten from being here…the last year, is that the purpose or the goal is to give kids the opportunity to have a hands-on, first-hand experience with nature, and to start to build that early on appreciation for that," (Interview, May 2014). First person examples of what Teacher Fern labeled "hands-on, meaningful experiences" included seeing the class interact with a student's wasp nest, a real (stuffed) duck the students petted while passing around, materials in the sensory water table, and with impromptu mud paint in order to paint the canoe outside.

While outdoors, students were frequently seen in a tree, playing or "mud painting" in the canoe garden area, digging along the path, and playing with sticks alongside the trail. Other students worked together to light a pretend campfire, "Go get wood and grass. We're going to fry hotdogs and mushrooms, and marshmallows for dessert," directed one student, who continued, "light the fire with a match. There, it's lit." Outdoor group games like Migration and Shadow Tag included both teacher and all students who chose to play. These group games were non-competitive and supported Allport's (1954) anti-prejudice theory about play that is egalitarian and promotes equal status among students and teachers. Perhaps the words of four students who proclaimed while playing outside, "[this preschool] is so fun!" most accurately depict the embedded design and practice of play and exploration.

Finding 4: Teacher-Modeled Learning

The fourth finding in this case study was teacher modeled learning. Teachers modeled their own learning by verbalizing observations and by supporting curiosity and connections to personal knowledge. The language that teachers model and use is specific, empowering language, and is consistent in individual, small-group, and whole-group contexts. Instances

when teachers modeled their own learning demonstrated that they were students with their students, supporting Howe's role of a Freedom School teacher—as a student among students (1987). Also endorsing teachers learning along with students is Allport's anti-prejudice theory, where equal status between students and teachers, while learning, is important. Modeling that they were learning showed students that teachers were not merely knowledge keepers there to "gift" information to "students who knew nothing," (Freire, p. 72, 1970).

Verbalized Observations

Teachers persistently modeled observations by verbalizing what they noticed, such as various statements by Teacher Doug, "hey look, a butterfly," "looks like a rattle", "Did you hear that? I think it was a goose," and "It's kind of dark in our snack spot, isn't it?" Learned discoveries were also shared, such as, "I guess we can't have fireworks at the rice table. That's what we found out," (Teacher Fern). Additional staff passing by outside on a sidewalk made a point to inquire about what students were noticing, "Hey what are you observing?" "So how are the observations going?" (Site Supervisor Brook).

Teacher Doug spoke to a student who had been pushing a large fallen branch through the dirt along the path, "You are a very strong plower." When another student showed interest in this observation, Teacher Doug inquired, "Do you want to be a farmer too? Farmers plow their fields…we can find you a stick to plow with." Teacher Doug handed that student a 'plow' and two students' plowing ensued.

Up the path in the garden area of the designated play space, Teacher Fern observed a student painting the canoe with mud paint, and encouraged, "If I want my house painted, I know who to call." Approximately nine minutes later in the same canoe garden area, a student declared, "Put on your best dresses and come." Another student added, "This is the best birthday ever." Without missing a beat, Teacher Fern suggested, "Should we sing?" and she started singing the Happy Birthday song.

In another observation, Teacher Fern affirmed a student's choice to release his found insect when she said, "You know the best place to put them back is where you found them." The teachers demonstrated not only observation of what the students were saying, but also verbalized these observations in a modeling sense. Teachers modeled noticing, listening, responding, and care for students in their feedback, comments, and playing along.

Supporting Curiosity and Connections to Personal Knowledge

When a teacher was seen interacting with materials at the science/artifact table, students curiously gathered around teacher, in a rapid gravitation. When a teacher stopped to investigate a snail outside, students gathered around the teacher and the mysterious discovery in the spotlight. As students played and explored, teachers would inquire, "What do you see?" modeling curiosity and provoking an interpretation. While outdoors hiking along a path, one teacher modeled curiosity with an inquiry, "Hey is there still skunk cabbage around?" Furthermore, both teachers supported casual storytelling and sharing, and used consistent inquiry about stories that students shared, provoking additional thought and observational details about students' personal knowledge. Teachers also posed questions about ways that literature themes could be connected to students' lives. One particular story being read aloud during snack time elicited four connections to students' knowledge and/or personal lives:

> "What's another book we've read about a mouse and a strawberry?... "Have any of you ever gotten stung by a bee?"… "Anyone ever been tickled?"… "You know what a splatter, splash is?" (Teacher Fern).

Teachers worked to engage students' curiosity and their thinking about how stories and items in nature were relevant to them, their knowledge, and/or their lives. One could interpret this practice as attempting to make stories and nature meaningful.

Specific, Positive, Validating, Empowering, and Responsive

Language and Care

The language style that both teachers utilized was striking. It was adamantly specific, positive, validating, empowering, and responsive—at once. One example during a peer interaction and communication intervention with a student was, "what do you say if you don't want to be splashed?" It is noteworthy that the teacher did not correct, or even communicate with, the student who did the splashing. Instead, the teacher empowered the splashed student with an inquiry about what he could clearly communicate to a peer about how his/her behavior made him feel. Another instance was when Teacher Doug declared, "I don't think we need any guns for this structure," as students were constructing outdoors with various sticks and fallen branches, and one declared he needed guns next. Rather than correcting or banning the student's language, Teacher Doug provided a diversion that demonstrated a concrete thought-process with his language choice, "I don't think..." at the beginning of his response.

This type of thought-processing language was not isolated. For instance, Teacher Fern inquired about a found worm outdoors, "Should we release the worm and let it be free?" Noting the non-directive infers an attempt to empower the students to model after her thought process and to inquire for themselves as well. There was a resounding validation of students' capacities to think, process, and make decisions, within the language that the teachers used.

Further examples of validation of students were responses to statements made by students, such as a reply of "are you? What kind of Superhero?" to the student declaring, "I'm a Superhero!" Similar validation was given to a student who declared, "I'm strong." Teacher Fern replied to her, "I know! You do gymnastics" implying that both the student's comment and interests were important enough to acknowledge, and that the comment had a connection to the student's personal experience. Teacher Fern proceeded to ask this student questions about gymnastics. This language supports and demonstrates a "multicultural curriculum that recognizes the positive things that all children bring to school and that encourages children to

be proud of their cultural background and identity" and capacities for learning and thinking critically (Derman-Sparks, 2003).

One more validating instance was feedback to a student's observation when Teacher Doug responded, "Hey, it does kind of look like a click beetle." "You're building a nest out of what?" was another teacher-response to a student declaring that she was constructing a pretend nest. In another example, one student was observed to not be affected by his visibly dripping nose for the duration of the outdoor time. At one point, Teacher Doug offered, "Hey, can I get you a tissue?" rather than not intervening with the situation as the student had so far done, or wiping the student's nose without asking him. This moment illustrated, again, persistent teacher care for, and the specific language used with, students. Teachers offered more than praise or acknowledgement when interacting with students; they modeled empowering language that validated the students' capacities for making decisions, responded to their individual experiences, and provided specific, positive feedback.

In all of the hours of all of the days that I observed the nature preschool sessions, I only witnessed calm, positive interactions facilitated by teachers with students. Teachers demonstrated care and pride for students through classroom displays of student work, their shared excitement about students' discoveries, and overall interest in their individuality. In one case, Teacher Doug showed interest in what a student was singing, "I just liked that song you were singing. Did you make that up?" [Yeah.] "That why I liked it" (Teacher Doug). This care extended into discipline, which was minimal, calm, positive, and at times redirecting, such as, "Hey can I read you guys a book?" Teacher Doug asked to a few boys who had been flapping and chanting loudly around the classroom during choice time. Notably, within the minute, five students were surrounding Teacher Doug on the floor for a story: two students were on their knees, one was standing, one was sitting, and one arrived and stood over the group later on.

Teacher care carried into nature as well. Teacher Doug modeled problem solving and care when he opened a window for, and released, a bird that was stuck flapping at a window

inside the classroom. As an outdoor snack concluded, Teacher Doug requested, "Hey you guys, pour your water on the plants, ok?" In addition to his modeling of empathy, Teacher Doug spoke about "building an empathy" for nature during his first interview:

> This is our space, it's where we play, but it's also so many other animals' habitats and homes, and…picking all the leaves off of a plant has a consequence, and far greater than you know, but…picking berries off of a tree will lead to less food for other animals, and relating those kind of things and building an empathy for animals and nature…is something that we're also working towards. And I think that is really important in this time.

This attendance to a bigger picture, that we are connected with, we impact, and are impacted by the world around us, speaks to the idea of "engaged pedagogy" that hooks (1994) described. She described the attention to the body, mind, and spirit in engaged pedagogy, which is what students thrive upon. Battiste paralleled hooks' notion with "teaching from the heart (Denton & Ashton, 2004), holistic learning, [and] Aboriginal epistemology and pedagogy (Ermine, 1995)," (Battiste, 2013, p. 183).

Finding 5: Engaging in Reflective Research

The fifth and final finding in this case study is reflective research that was continually being facilitated and undertaken in this nature preschool. In this section, I will cite evidence for the many ways that 3-5 year old children are: interested, inquiring, observing, noticing, and doing—essentially researchers—at this preschool. I will also discuss ways that this finding consolidates literature about social justice education, early child development, and nature-based learning.

Students as Researchers

Amidst the choices, opportunities, play, exploration, and teacher modeled learning in nature, students are continuously conducting research. They are making their own observations as they interact with nature, materials, and one another, and they are informing their understandings about the world. And, as they are making these observations, students are making connections and inferences, and constructing knowledge. By engaging in research, learning is not being imposed on students. They are immersed in the learning process, being curious, asking questions, making discoveries, and attaching meaning. Gopnik discussed how this type of investigative learning leads to "causal understanding" which "lets you deliberately do things that will change the world in a particular way" (2009, p. 33). This early undertaking in research also matters to Gopnik's observation that "our childhood experiences guide the way we create our own lives," (p. 17). When wondering, observing, and researching, students are developing capacities for creating change in lieu of replicating or regurgitating information.

Exploratory and play-based research were described in a section of a parent newsletter in Figure 4.4:

> *Down in the forest, we stopped by a small stream and investigated its shallow pools, stood on the largestones, and floated leaves down the small waterfall. After that, we went into Coyote Field and ran across,howling like coyotes, to a set of benches for snack. Since we still had plenty of time in our day, we decided to keep walking down the trail to a place we call Bunny Fields. Can you guess what animal likes to live there? This is one of [Fern's] favorite places in the park – it is a large, grassy, open field full of mud puddles in the winter and bugs and buttercups in the spring. We played and explored there for the rest of our time outside.*

Figure 4.4 Parent Newsletter Clip about Research

Here, the teachers narrated an experience where the purpose was investigating. And, after the class left, and had snack, they moved spaces to another field to observe and discover in. In the same newsletter, a caption next to a photo of two students watching out an open classroom

window stated, *Below: Tre and Barry look and listen for birds.* Inside and outside at the nature preschool, opportunities abounded for students to conduct research. The following page of the newsletter displays photos of the students experimenting with ice, with this caption: *We had fun melting ice, inside the classroom and in the forest.* While students are participating in tasks of scientific discovery, they are conducting research.

Enabling Observations, Discoveries, and Perceptions

Some of the research underway was more autonomous than others. Students made simple individual discoveries and shared them with the class, such as, "I found an ant! I found an ant, guys!" (Observed student). During another observation, a student approached me with a translucent bug box and shared, "I found an ant. I put it in here. Polly helped me. You can see it better with this magnifying glass on top." Later that morning, another student declared, "Hey, a dragonfly. I'm going to watch him. A dragonfly!"

During a morning circle time, Teacher Fern inquired about students' observations from earlier in the week, with, "What did you notice about the birds nests' materials?" Students shared out in the whole group as Teacher Fern wrote students' observations on the easel. In this example, noticing and observing details were encouraged. Next, students were asked for their perceptions, "If you were a bird, would you want to have a soft nest?" (Teacher Fern). Then, students' observations and perceptions were recognized with a probe for the impending outdoor time, "While we're outside today, I want to see what kind of nest you build," (Teacher Fern).

Teachers directly initiated some research. In morning circle time, Teacher Fern handed each student a real bird feather and encouraged students to make discoveries about them, particularly the way that the feathers "zipped" and "unzipped". In this demonstration, Teacher Fern made a connection between zipping and unzipping of feathers to that of students' coats. In this example, research about observing how something works is encouraged, supported, and

reflected. In another instance during outdoor time, students were encouraged to lie facedown on ramps among the treetops to perceive a birds-eye view as was introduced in the classroom. While imaginary, students participated in a form of action research to investigate the perception of birds who see the world differently than 3-5 year old children on the ground do.

Ample opportunities for research were available to students all day, every day. This fifth and final finding endorses Carson's (1956) summary that "exploring nature with your child is largely a matter of becoming receptive to what lies all around you" (p. 67). Becoming receptive through reflection, observation, and research is aligned with the call for contemplative education for social justice education (Ladson-Billings, 2001 & 2006; hooks, 1994; Howard, G.; Cochran-Smith; Ladsman; Freire, 1970; Gay & Kirkland, 2003; Banks, 1996; Battiste, 2013). One activity that the students had engaged in earlier in the school year, prior to my data collection timeline, was "solo walks". Teachers structure solo walks in the forest for each student to experience individual "solo" sensory and/or reflective engagement in nature. Logistically, the teachers are in two different places along a forest path, and one student at a time embarks on a "solo walk" from one teacher to the other. This built-in structure for reflection, observation, and immersion of the senses is a powerful example of the reflective research being conducted in this study's finding. Such an act of getting to know one's self is well-cited in social justice scholarship (Battiste, 2013; Banks, 1996; hooks, 1994; Freire, 1970).

Thinking about implications for students' reflective research Teacher Doug commented on the ways that this program helps students in contexts beyond preschool:

> I hope that it would make them, um, more individual thinkers and give them a voice in themselves…so that they wouldn't maybe base their decisions off of,…I guess societal norms or generalizations,…and that sounds like really advanced for preschoolers, but I hope that's the seed we're planting, that you know, eventually we're starting that wiring that will allow them capabilities of doing that (Interview, May 2014).

Chapter 5:

Conclusions and Implications

Five categorical findings were generated in this case study: The first finding referred to nature as not only the catalyst for the preschool, but also for learning interactions occurring there. Nature, while indoors and outdoors, drove the themes, activities, and practices in the program. The second finding was a structure of trust in, and autonomy for, students to self-select ways to participate in their learning. The third theme that emerged, engagement in play and exploration, entailed counterfactual thinking promoted by creative, pretend play. The fourth finding was an embedded, consistent practice of teacher-modeled learning. Lastly, the fifth categorical finding concerned the students as reflective researchers. These findings address the purpose of this research: to better understand in what ways, if any, parallels between social justice education and a nature preschool's design and/or practices are reflected, supported, and/or encouraged.

In summary, these five findings represent the five following supports for social justice education that have been identified in scholarship. First, accomplished through teaching with the senses, an embedded practice was reflection-based learning (hooks, 1994). Second, the unyielding positive interactions between teachers and students fulfill a need in anti-bias education, revealing an asset-view that 3-5 year old students are both knowers and learners (Derman-Sparks & Edwards, 2010; Gay, 2000; Freire, 1970). Third, consistent egalitarian play prompted by nature and by teachers supported Allport's (1954) anti-prejudice curriculum's two conditions: equal status and cooperation rather than competition. Fourth, the continuous teacher modeling of learning paralleled the Freedom School teacher's role to learn with the students (Howe, 1987). Fifth, this program's research-based learning design represented an alternative practice to the information "banking" (Freire, 1970) that perpetuates Social

Reproduction Theory. Multiple circumstances were evident where "a particular set of conclusions" was not imposed on the young children (Howe, 1987, p. 10). Related to this non-dominating learning, non-interference in one's learning journey—a key element in Indigenous Pedagogies—was evidenced (Battiste, 2013).

Interpretations

This study found that the abundance of surrounding nature was a backdrop, a learning environment, and an analogous catalyst for learning. Nature embodies an endless metaphor that we are larger than ourselves, that we are connected to a greater whole, and that our role with it affects the greater collective. A similar theme exists in education for social justice: we are with the world, rather than merely in the world (Freire, 1970). Our individual narratives affect, and are simultaneously affected by, the greater collective.

The lack of manufactured and/or designated materials for learning and play parallels the notions of students' learning journeys through organic discovery, imagination, and counterfactual thinking (Gopnik, 2009; Battiste, 2013). This idea supports ethnorelative, or multicultural, education according to both Indigenous pedagogies literature and Social Reproduction Theory. Ethnorelative or multicultural education is supported when students are not being imposed with a knowledge canon that reinforces correctness (Banks, 1996). In regards to not limiting, or imposing on, children with our knowledge, the findings parallel Code's (1991) finding that, "everyone can be an expert about women—about what they are and what they can be or do—except women themselves." Allowing, encouraging, and supporting 3-5 year old children to be included as knowers, or experts, in their learning, reflects socially just education that also disrupts social reproduction. This model of education can also be interpreted as a proactive model for social justice and equity, rather than a reactive one. The same cannot be said for universal preschool policy and implementation.

The findings about this nature preschool suggest a paradigm that views children not as empty vessels needing to be filled with experts' knowledge deposits, but as passionately curious individuals who are to be supported in their interests in bugs, mud, playing, and a combination of. This selected program's paradigm aligns with the idea that education is about freely and creatively participating in the transformation of the world, rather than receiving and depositing, "gifted" knowledge (Freire, 1970). The expectation in this program is not that all children engage in the same learning at the same time. Instead, meeting students where they are is both the practice and the outcome in this nature preschool.

This nature preschool's design and practices, while embodying ways that support, reflect, and encourage social justice education—did not reflect or embody others. A fundamental principle of social justice and multicultural education is that they "must permeate school climate, culture, and practice—that [they] must be visible everywhere, including in decision-making processes" (Nieto, 2000, as in Gorski, as in Ladsman et al., 2006, p. 66) and in "curriculum materials, curriculum content, the existence or absence of multiple perspectives, instructional strategies, language diversity, student evaluation, grouping practices, visuals, role models, home and community relationships, and extracurricular activities," (Grant & Sleeter, 1998, as in Gorski, in Ladsman et al., 2006, pp. 66-67). The element of social justice education to make explicit language about ways that social systems interact with learning in preschool was not found in the reflected design and practices (Ladson-Billings, 2001 & 2006). This visible permeation and specific use of non-neutral social justice oriented language—also necessitated in Critical Race Theory—was not evident, and was not transparent, in observations, interviews, or document analysis.

The parallels to social justice education that were supported, encouraged, and/or reflected in the nature preschool's design and practices were not explicitly presented as intentional for social justice education, in interviews, observations, or document analysis. In

other words, whether the design and practices found in this study were put in place with the intentions of social justice, this was not evident in the findings analysis.

As introduced in chapter one, the term *social justice* in this case study is referred to as: a study, an aim, an ethical position, and an act of interrogation, to create equal opportunities for all students from diverse racial, ethnic, social-class, gender, and cultural groups (Ladson-Billings, as in Ladsman et al., 2006; Banks & Banks, 1995, as in C.A.M. Banks, in Banks, 1996; Dantley & Tillman, 2006).

Because of a lack of evidence of social justice *intentions* in the design and practices, the study's findings cannot and should not be interpreted as supporting critical theories that assert intentionally maintained privilege differentials (e.g., as Critical Race Theory (Ladson-Billings, 2001 & 2006) does with questions related to race and power relations). As described previously, critical theory challenges systems of knowing which benefit some while disadvantaging others, and this language was not present in the data collected. While direct support for critical theories was not found in this study, an inaccurate interpretation or conclusion would be that injustice is promoted in the design and practices. While 3-5 year old students are not discussing "the social issues involving unequal distribution of power and privilege that limits the opportunity of those not in the dominant group," (Grant & Sleeter, 1998, in Gorski, in Ladsman et al., 2006, p. 68), they are engaging in designs and practices—arguably age-relevant ones—that support and/or reflect social justice education, described in detail in chapter four. In other words, the term *parallels*—referencing ones between social justice education and this nature school's design and practices—is a deliberate term not to be construed as one conveying that criterion for social justice education is realized.

Louv's interpretation of this selected program's experiential design merges more so with social justice education elements, while his interpretation of environmental education design does not. A significant note, then, in the implications for this study, is that nature-based

programs have the potential to both disrupt and maintain social reproduction models. In a model of environmental education that promotes a correct way to live in the world, the student is in a role as the receiver of knowledge deposits, distinguished from a capable depositor who conducts her/his own reflective research about ways of knowing.

Finally, this study did not attend to either the adults' or students' interpretations of, or "knowledge" about, social justice, therefore does not imply the role, presence or absence, nor asset or deficit, of such development in the findings.

An alternative interpretation of this study could entail questions around the role of the location and catalyst of nature in this study. Whether this particular nature context was an integral part of the social justice education findings is questionable, as the designs and practices likely have the potential to exist in other settings as well.

Unanswered Questions: Further Research

In refraining from using specific language related to social justice education, I did not lead answers, observations, or document sharing. However, I may have missed targeted opportunities to learn about the interviewees' experiences with, or interests in, social justice education. By planting a buzzword or phrase, such as "social justice," I may have elicited deeper "data" via interview conversations, or, I may have elicited less.

One area about which I have unanswered questions is critical thinking, and how scholarship for early childhood defines and considers this. I am interested in further research regarding what ways, if any, critical thinking enters the design and practices in the selected nature preschool. And, if so, I wonder in what ways this might apply to social justice education and praxis.

Additionally, in what ways were the findings in this study a manifestation of the social class of the children and adult participants? Specifically, what patterns of engagement with nature and each other, curiosity building, and student research and discoveries, would have

been found in a school serving predominantly historically underrepresented and marginalized children and families? And, how would any potentially different patterns have changed the meaning of the findings in this study?

Regarding further research, in what ways are the social justice education parallels found reflected in this study limited, or not, to the nature preschool design and practices? Or in other words, how are these social justice parallels specifically available—or not—to preschool designs and practices other than the nature preschool? In what developmentally-sensitive ways might additional parallels to social justice education be included in nature or other preschool programs?

Broadly, the five findings in this study are not currently included, assessed, or measured, as part of the Common Core Standards now being adopted by states, and they are not part of our Secretary of Education's agenda. In what ways might research of an early childhood program that strives "for [preschool students] to realize that they do have an effect", and to give students a voice, be meaningful and/or best utilized in leadership and policy work? (Site Supervisor, Interview, June 2014).

Quite broadly, what are the implications for 3-5 year old children learning that they have power over choices they make? What can/does this mean for social justice work, when children are having first hand experiences with nature, and are allowed to direct their own time? Will they have a different experience or perspective with systemic inequities? What can be inferred when a program's designed outcome is to meet students where they are?

Also, more broadly, what capacities do children possess when they are comfortable with and confident in exercising their imaginations, rather than repeated compliance of performance standards, over time?

One inherent challenge with an emerging pedagogy in a nature preschool is its limited accessibility. If continued research uncovers evidence that supports for social justice education

found in this design are meaningful, then policy makers may wish to consider this implication for early childhood education and universal preschool on the horizon. Notably, this study does not seek to advocate for universal preschool vouchers for nature preschool. Both Cashin (2004) and Lowe (1995) provided ample evidence for their pragmatic conclusions that such "voucher experiments"… avoid "the hard work of building consensus for that necessary course" to help all children, (Cashin, p. 300). An important further inquiry then, is an investigation of ways that participation in nature preschool does or does not represent diverse, and/or integrated, groups of children, and at ways that the program does or does not target historically marginalized and/or underrepresented children.

Practical Implications for Early Childhood Education

Policymakers and Leaders

This study offers implications for educational researchers, early childhood education policymakers, early childhood educators and leadership, and parents interested in preschool opportunities. First, this study's findings offer relevance for early childhood education in social justice scholarship by searching out and locating evidence of practices that are representative of both dispositions. An implication for researchers is further investigation of whether, and how, these five supports and reflections manifest—or could manifest—in other preschool settings, designs, and/or practices. Also from a scholarship stance, this study invites further research that follows student participants for longitudinal investigations of their relationships with knowledge construction, learning and inquiry, and reflection. Following students who participated in this design and these practices that support parallels to social justice education in the earliest of educational experiences would provide important insight for all educational stakeholders. For instance, learning about the ways these children later approach the social

justice focus on marginalized groups, underserved, underrepresented groups (Dantley & Tillman, 2006) would provide important connections to the impact of the design and practices of this study's findings.

Those who work with adult—or near adult—learners toward a social justice goal, have five tangible insights to help their learners to deconstruct their socialization and educational experiences. In other words, adults considering ways that their own educational experiences were, or were not, inclusive of (1) reflective-based learning, (2) treatment as both a knower and a learner, (3) equal status and cooperation with peers, (4) teacher-modeled learning, and/or (5) research-based, interest-based learning, might be better able to grasp ways they have come to know and be in their role with the world.

Policymakers devoted to disrupting social reproduction of inequalities can utilize the findings in this study when considering and making decisions about educational reform and/or equitable and socially just education agendas. As proactive practices that reflect social justice education, policymakers can make better informed decisions about reactions to achievement data disparities.

Parents invested in social justice education might use the supports and reflections found in the study to make decisions about their children's preschool options and opportunities. Parents might also use the five findings as conversation points for change agency.

This research contributes to a limited literature base on social justice early childhood education design by recognizing practices that merge two distinct fields of study. "Early childhood social justice education" is an emerging field of study, and to develop modes that support this movement implies a significance for educators' lenses of very young children, and their work with them. Another implication for these findings, then, is the application of tangible practices identified as supporting and reflecting social justice education in preschool programs. Early childhood educators looking to implement social justice practices and looking for an answer to, "but how do we do it?" (Ladson-Billings, in Ladsman et al., 2006, p. 29) can utilize

age-sensitive reflections detailed in the study, toward a social justice goal. This implication is cautionary as these practices represent ways of *doing*, and not ways of *thinking* that are at the root of social justice issues (Ladson-Billings, in Ladsman et al., 2006). While this study's findings are not inferred to encompass the intentional, critical cultural analysis necessitated for social justice education (Ladson-Billings, in Ladsman et al., 2006) the practices in the findings do represent social justice education parallels for 3-5 year old children.

In her reflection about passion for learning, Battiste challenged those of us who care about education "to have enough love of learning to have the courage to remake it, imagine it, and teach it" (2013, p. 190). If we are to feel connected with our world, with fellow human beings, and with our personal roles *with* the world and *with* fellow human beings, then we must have formal educational opportunities and modeling to do so. Broadly, it is my aim that this research on the design and practices of one nature preschool—found to support and reflect some of these opportunities—implies meaning in our conversations and architecture about children, educational policy, and shared humanness.

Overall Conclusions

This research found five common themes of "social justice oriented" education that were supported, reflected, and encouraged in a nature preschool's design and practices in five ways. These ways cannot be assumed to apply in another nature preschool setting, as this was an investigation of a single "critical" case. But the existence of these patterns in this instance suggests that they can occur elsewhere, and at the least their existence prompts the conversations so often missing about preschool education, and ultimately about the educational policies related to it. It also invites an explicit look at the possibility of impacting social reproduction processes at the preschool level.

This research study is intended to help us better understand how the design and practices in a nature preschool, where the curricular outcomes are not predetermined, nor standards to be evaluated against, gives young children opportunities to create and think about knowledge. Examination of evidenced supports for social justice education—as chronicled in the summary of findings—informs our collective paradigms of both early childhood education and social justice education. Informing these paradigms makes space for further exploring an emerging lens for early childhood social justice and its praxis.

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Appendix A:
Weekly Theme Planner

Weekly Theme: Fruits

	Monday	Tuesday	Wednesday	Thursday	Friday
Circle Time	Seed dissection Apple tree song		Question of the day: Which do you like more – apples or oranges?		How can we prevent an apple from browning?
Craft	Sponge painting or finger painting our favorite fruit shapes		Apple stamping		Apple rolling
Math & Science	How many pears are in the pear tree?		How many seeds are in the apple? chart		What makes an apple brown?
Literacy	Apple tree song		Apple tree song		Apple tree song
Books	Eating the alphabet, the apple pie tree, a fruit is a suitcase for seeds, how do apples grow, apples and pumpkins, from seed to pumpkin, let's go nuts!, the carrot seed, pumpkin circle, corn by gail gibbons, from bean to bean plant,				
Outside	Parachute with helicopter seeds		Forest berry picking (NOT eating); apple rolling		Catching raindrops
Circle Time	Fruit dissection and prediction: What will we find inside?		How can we prevent an apple from browning?		Apple/fruit taste test

Standards Addressed:

State Science Standards
K-1 LS2A: There are different kinds of natural areas, or habitats, where many different plants and animals live together.

K-1 LS2B: A Habitat supports the growth of many different plants and animals by meeting their basic needs of food, water and shelter.

The Head Start Child Development and Early Learning Framework
Physical Development:
- Fine Motor Skills
  - Seed dissection
- Gross Motor Skills
  - Apple rolling

Mathematics:
- Measurement and Comparison
  - How many seeds in an apple?
  - Apple taste test
- Number Concepts and Quantities
  - How many pears in the pear tree
  - Apple tree song
  - How many seeds in an apple?

Literacy:
- Early Writing
  - Apple taste test
  - Question of the day
- Print Concepts and Conventions
  - Apple taste test
  - Fruit dissection and prediction

Language Development
- Receptive Language
  - Apple tree song
- Expressive Language
  - Which do you like more – apples or oranges?
  - How can we stop an apple from browning?
  - Apple taste test

Logic and Reasoning
- Reasoning and Problem Solving
  - How can we stop an apple from browning?
  - Fruit dissection and predictions

Social Studies:

- o People & The Environment
  - o Nature walk

Creative Arts Expression
- o Drama
  - o Life cycle of an apple seed
- o Music
  - o Apple tree song
- o Art
  - o Apple stamping
  - o Apple rolling art
  - o Sponge painting an apple

Science:
- o Scientific Skills and Method
  - • Seed dissection
  - • Fruit dissection
  - • How many seeds in an apple?
  - • How can we stop an apple from browning?
- o Conceptual Knowledge of the Natural & Physical World
  - • Fruit dissection and prediction
  - • Pear tree visit
  - • Helicopter seed toss
  - • Berry picking

Outline

Morning Circle Time Activities:
- o Seed dissection
  - • Presoak lima beans overnight. Draw a picture of a seed on the whiteboard and start a discussion about what the picture is and what they might find in the seed. Explain that the children are going to be scientists, and explore the seed to find the baby plant hidden inside. Go through the first layer, the seed coat, by peeling off the skin of the seed. Next explain that the seed can split in two halves – these are the food (cotyledon) for the baby plant to grow on. When the children split open their seed they should look for the baby plant (embryo) and pick it off.
- o Apple Tree Song
  - • Way up high in the apple tree, 5 little apples smiled at me. I shook that tree as hard as I could, and down came an apple. Mmm, was it good!
  - • Count down from 5 apples to 1 or 0 apples. Create hand motions for the children.
- o Question of the Day: Which do you like more – apples or oranges?

- Write this question on the whiteboard or large poster. Ask each child to answer the question by placing their name under apples or oranges. Count the number of names under each.
  - How can we prevent an apple from browning?
    - Discuss the problem – our apples are turning brown and we need to come up with a solution. Share the different types of liquids we can use to stop the apples from browning.

Crafts:
  - Sponge painting our favorite fruits
    - Ask children to draw their favorite fruit. Using a sponge, they can paint in their fruit!
  - Apple stamping
    - Cut a variety of apples and/or pears in half. Stick a fork in the skin to use as a handle. Children can stamp the fruit in paint and stamp, smear, paint with it on paper.
  - Roll the apple
    - Tape a piece of paper into a small cardboard box or plastic bin. Put whole apples or pears in little dishes of paint on the table. Children can choose which fruit/paint to put in their box and shake, tilt, spin the box around to move the fruit across their paper.

Math and Science:
  - Seed balls
    - Measure out the ingredients for Seed Balls with the children. Recipe can be found in lesson plan for September 30th-October 4th.
  - How many seeds are in an apple? - chart
  - What Prevents an Apple from Turning Brown?
    - State the problem at hand: our snack apples are browning way too quickly, we need to come up with a way to prevent this.

Literacy:
  - Apple Tree Song
    - See lyrics under Opening Circle Activities
  - Apple tree stamps
    - Draw a large picture of an apple tree and write "Way up high in the apple tree, ____ little apples smiled at me!" The students can color in the tree and put fingerprints in the branches for apples. Count the number of apples in their apple tree.

Outside Activities:
  - Parachute Play

- Bring out a parachute to the canoe garden. Ask children to collect helicopter seeds or leaves and place them in the parachute. Practice using the parachute and teaching skills.
  - o Forest berry picking
    - Collect different berries that you find in the forest. Find a spot along the trail to leave the berries as a snack for the forest animals. Check on your berry snack later in the week – are the berries still there?
  - o Collect raindrops
    - Bring out cups and try and collect rain drops or falling water – where is the best spot to fill your cup?

Closing Circle Activities:
  - o Fruit dissection
    - o Create a large chart titled How Many Seeds Are In An Apple? It should have a column for the apple size (small, medium, large), for children's predictions and for the number of seeds found inside. Go through each apple with the class, taking predictions for how many seeds we'll find, and then cut open each apple, counting the seeds together.
  - o Apple Taste Test
    - o Slice a red, yellow and green apple into 12 pieces. Give each child one of each color. Ask them to fill out the Apple Taste Test sheet as they try the different pieces. All together as a group, vote for the class favorite.
  - o How can we prevent an apple from browning?
    - o Bring out the apple slices and solutions. Show each jar to the children and ask their observations. Which apple slices are turning brown? Which are staying white? What do you notice?

Appendix B:
Weekly Theme Planner

Weekly Theme: Bees!

	Monday	Tuesday	Wednesday	Thursday	Friday
Circle Time	Build a flower Here is my beehive poem		Beehive behavior		Why are bees yellow and black?
Craft	Circle bee craft		Bubble wrap flower art		Yellow and black paintings
Math & Science	Glass insects at science table		Hexagon shapes Beehive pieces		Yellow means "Danger!"
Literacy	Here is my beehive				
Books					
Outside	Pollen collection game		Where's the best flower? – bee game		Search for bees and yellow millipedes
Circle Time	Flower dissection		Pin the pollen in the flower		Bees make honey. Do you like honey?

Standards Addressed:

State Science Standards
K-1 LS2A: There are different kinds of natural areas, or habitats, where many different plants and animals live together.

K-1 LS2B: A Habitat supports the growth of many different plants and animals by meeting their basic needs of food, water and shelter.

Outline

Morning Circle Time Activities:
- o Build a flower
  - • Create flower parts out of construction paper: stem, leaf, petals, stamen, pistil, pollen, roots. Ask the children to come up and place their flower piece in the right place.
  - • To aid in this, have a picture of the inside of a flower to guide the children.
- o Beehive behavior
  - • Explain how bees communicate, without using any words. Bees shake their abdomen, or booty, around to explain where the best flowers are.
  - • Pair the students up and have one student hide something from the other. Can the hider use their bee abdomen to point their friend in the right direction?
- o Why are bees yellow and black?
  - • Show pictures of animals that are camouflaged. Ask the children why these animals want to hide.
  - • Show pictures of animals/bugs that are brightly colored. Why are they so bright? These animals are warning other animals – watch out! I hurt!

Crafts:
- o Bee craft
  - • Challenge the children to draw and cut out circles to make a bee. Instructions included at the end of this curriculum.
- o Flower craft
  - • Create petal shaped stamps out of bubble wrap and cardboard. The children can make flowers for our bees!
- o Yellow and black paintings
  - • Provide yellow and black paint. See what the children create!

Math and Science:
- o Glass bugs
  - • Bring out the bugs-in-glass for the science table. Can the children find the ones that are bees?

- o Beehive piece
  - • Allow the children to explore the beehive piece.

Literacy:
- o Here is my beehive poem
  - • Here is my beehive, but where are all the bees? Hidden away, where nobody sees. Wait and you'll see them come out of the hive – 1, 2, 3, 4, 5! Bzzzzzzzz!

Outside Activities:
- o Pollination game
  - • Hide little colored pieces all around the lawn. As little bees, the children should buzz around and collect them, bringing the pieces back to our beehive porch.
- o Where's the best flower?
  - • Put the children into partners. One child can go hide a brown cotton ball (pollen) somewhere around the lawn. They come back to their partner and use their booty to point the way. Give an example of what that might be like.
- o "Dangerous" bug search
  - • Go on a search for insects. Look at their coloration – are they camouflaged or sending a warning?

Closing Circle Activities:
- o Flower dissection
  - o Give each child a flower. With a diagram on the board, see if they can find the pieces of the flower: pollen, stamen, pistil, petal, stem.
  - o Optional: Provide tape and a piece of paper for the students to tape their pieces to.
- o Pin the pollen on the flower
  - o Draw or create a large flower. Blindfold each child and see if they can tape their paper pollen circle in the correct place on the flower.
- o Bees make honey. Do you like honey?
  - o Give a small sample of honey to the children. Then take a poll – do you like honey?
  - o If time, write a thank-you note to the bees. ☺