

PERCEPTIONS OF NATURALIZED PLAYGROUNDS:
A QUALITATIVE STUDY

by

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ABSTRACT

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Play is an important part of childhood that helps to develop social skills and ensure proper mental and physical development. There is a growing concern among parents and play researchers that technology and urbanization are limiting children's access to the natural environment. This is encouraging play designers to create playgrounds that are based more on natural elements, such as water, plants, hills, tree groves, and rock outcrops, rather than manufactured equipment. Because environments can affect the behaviors that occur in them, a growing number of studies have focused on how naturalized play environments impact the development of children as they play.

However, few studies have addressed how people who are interacting with naturalized playgrounds view them. This thesis discusses the findings of a qualitative research project that aimed to understand if naturalized playgrounds at mostly

educational facilities were being viewed as viable play environments by examining supervisors' and teachers' perceptions of how the playground was being used.

The naturalized playgrounds in this study contained about two thirds natural elements and one third manufactured elements. Most participants in the study felt that the term "naturalized" adequately characterized the play facility under their supervision. They also showed an active interest in furthering their education about naturalized playgrounds and saw their role as a facilitator of play.

Naturalized playgrounds were viewed by participants as providing viable play options for children and, in most cases, a better option than traditional playgrounds due to the open-ended play opportunities the natural elements promoted. Participants in this study saw the heavy and continual use of natural elements promoting benefits such as a connection to nature, educational opportunities, and creating a dynamic playground that was interesting all year.

When looking at how children used the environment, the perception was that a less formally structured playground provided an environment that everyone could enjoy. This also promoted more creative play that allowed for many types of play as opposed to the mainly physical play of traditional playgrounds. Data also showed that individual elements tend to promote specific types of play, which makes having a broad diversity of elements important.

(234 pages)

PUBLIC ABSTRACT

Perceptions of Naturalized Playgrounds: A Qualitative Study
Jeffrey C. Hamarstrom

Play is an important part of childhood as it helps to develop social skills and ensure proper mental and physical development. Electronic media, stranger danger, and urbanization have reduced both the time and access children have to play in natural areas. Many people believe that this is an integral part of childhood and, therefore, concern that children are not interacting with the natural world is becoming a popular topic. Research has shown that natural environments can have various benefits such as reducing anxiety and promoting developmental skills. Play providers are now creating playgrounds that attempt to recreate natural settings, referred to as natural or naturalized playgrounds. These play environments utilize natural elements including water, vegetation, hills, tree groves, rock outcrops, and streambeds rather than manufactured equipment. Because behaviors are affected by the environment in which they occur, a growing number of studies have focused on how these naturalized play environments affect children developmentally. Very few studies have surveyed to the adults at facilities that contain these playgrounds to see how they view them. Therefore, this thesis investigates the perceptions of naturalized playgrounds at educational facilities to see if they are perceived as a viable play environment and if they are providing a connection to nature.

Fourteen participants, from different playgrounds, shared their thoughts about the playground as an environment, and the play activities they see children participating in. It was found that naturalized playgrounds contained about two-thirds natural elements and one-third manufactured elements. Participants thought of their playground as “naturalized,” which may lead to confusion as these playgrounds are referred to by many different terms. The participants also showed an active interest in furthering their education on naturalized playgrounds as well as facilitating play.

Naturalized playgrounds were seen as being viable playgrounds for children and, in most cases, being better than traditional playgrounds due to the open-ended and unstructured play opportunities the natural elements promoted. Participants in this study also thought their playground provided numerous connections to nature and wanted the playground to be even more natural. The heavy use of natural elements allowed for other positive aspects such as educational and open-ended play opportunities as well as a playground that was always changing and therefore interesting. It was also found that the open-ended structure of the playground provided a playground that everyone could enjoy due to it promoting creative and imaginative play.

This thesis found that naturalized playgrounds create a play environment that promotes much more than just the “physical play” mentality of a traditional playground. Naturalized playgrounds allow for play that is not based on gender or physical skill, as well as allowing children to play how they want. In that play, children are engaging in developmental processes, connecting to nature, being social, and learning from the world around them.

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CHAPTER I

INTRODUCTION

Play is essential for children's emotional, cognitive, social, physical, and educational development (Frost, Wortham, & Reifel, 2008). The play environment can support these diverse needs in different ways (Barbour, 1999; Campbell & Frost, 1985; Hayward, Rothenberg, & Beasley, 1974). The growing concern of parents and outdoor play researchers over the loss of interaction between children and nature has pushed designers toward creating play environments that are based more on natural elements than manufactured equipment (Fjortoft, 2004; Fjortoft & Sageie, 2000; Herrington & Studtmann, 1998; Moore & Wong, 1997). These playgrounds are often referred to as "natural" or "naturalized" and typically contain natural elements such as water, plants, flowers, hills, tree groves, weather stations, rock outcrops, and streambeds. They might also contain some of the typical manufactured play structures such as swings, multi-level structures, or climbing structures (White, 2004). While the elements being used might differ, all naturalized playgrounds promote the idea that natural elements are there to be a part of play and to be played with; they are not just there for aesthetic value.

Naturalized play environments attempt to create an environment that is highly stimulating and interesting to children while providing a connection to the natural world (Moore & Wong, 1997). These playgrounds are gaining recognition as viable options for play and are beginning to be built with great variety across the United States and internationally. Many studies have focused on quantitative data showing how these environments are affecting children's development including physical (Fjortoft, 2001), play types (Campbell & Frost, 1985), and social/emotional (Herrington & Studtman,

1998). The few studies that have examined adult perceptions of natural play areas have investigated adults and the aesthetics of the playground (Brown & Burger, 1984), how having or not having vegetation in the playground affects adult's perception of daycare facilities (Herrington, 2008), a neighborhood's perception of a naturalized playground in a park (Moore et al., 2005), or the perception of health for students in larger, more vegetated schoolyards as compared to smaller ones (Ozdemir & Yilmaz, 2008). While these studies have examined naturalized playgrounds from several different perspectives, they have not addressed the question of how the people who interact with children and these environments on an everyday basis believe their naturalized playground is meeting its intended purpose as a viable play option.

To address the need of better understanding naturalized playgrounds from different perspectives; this study investigated specifically how teachers and supervisors at educational facilities perceived their naturalized playground. The results of this study will help determine if this type of playground is viewed as being a viable option and if they are actually providing children with any connection to nature. This information will allow play providers to understand how naturalized playgrounds are viewed, which will allow them to create better and more engaging naturalized playgrounds.

CHAPTER II

LITERATURE REVIEW

Defining Play

Play is a complicated subject and our knowledge and understanding of it is constantly evolving. Play is defined as a complex set of behaviors that take the form of actions, reactions, and interactions where children are comfortably in control (Hayward et al., 1974; Moore, 1986a). During play, children can create their own rules, test their own ideas, communicate with others on their level, and learn things at their own pace (Hayward et al., 1974; Moore, 1986a). Play can also be seen as participating in games or other activities for enjoyment rather than for a serious or practical purpose. Karl Groos (1901), one of the first researchers to investigate the function of play, stated that play is, “the agency employed to develop crude powers and prepare them for life’s use” (p. 375). From a child’s viewpoint, play is, “what we do when no adult is telling us what to do” (Adventure Playground Association, 2006, p. 3). Joe Frost (1992) stated that the idea of play cannot be concisely defined, but instead it should be described by the characteristics of what children are doing. Further, when looking at play, it is important to understand the context of what is occurring (Bolig, 1990). What might be play for one child may not be play for another.

Free Play vs. Directed Play

There is a significant difference between directed play and free play. Free play is voluntary, spontaneous, contains pretend elements, is engaging, and is fun. This is what

occurs when children are told to, “go outside and play.” Directed play, on the other hand, is organized for the children, such as physical education class or organized sports. Free play is critical because it is doing more than simply keeping the child occupied; it involves him or her in the world around them and can engage more motor skill behaviors than directed play can (Bolig, 1990; Frost et al., 2008; Wolff, 1979).

Free play can happen anywhere, but the more diverse the environment is, the more opportunities for different types of free play there will be. The outdoors is where most active free play occurs due to fewer concerns about loudness or running. This active play has many physical, cognitive, and social benefits (Burdette & Whitaker, 2005). Free play can also occur during recess and has been shown to increase the focus of children afterwards (Zygmunt-Fillwalk & Bilello, 2005). This child-centric free play is in contrast to the world of adults that is full of rules where children might find it difficult to express themselves. Free play provides the clearest example of what play should be for children.

Understanding Play

Throughout history, mankind has both participated and wondered about play. Karl Groos (1901) believed that play existed because it was a safe way for animals to prepare themselves for the hardships of adult life, also known as instinct-practice theory. For example, baby tigers sneak and pounce on one another in a playful manner to hone skills in order to catch prey (Groos, 1901). Plato thought that children, while playing, should act out the roles of adults to prepare for adult life (Frost, 1992). The surplus energy theory states that children engage in play to burn off excess energy (Frost, 1992).

Surplus energy theory is fairly engrained in the general populations mind and has caused many to think play is just to make children tired. The relaxation theory states that play is what we do to rest to our minds (Frost, 1992). Sigmund Freud maintained that emotion is the main motive for play and allows children to deal with pressures that arise when they cannot do something they want. For example, a child might want a cookie, but a parent will not let them have it, so the child creates their own world where they can have all the cookies they want (Frost et al., 2008).

How to sort out the various types of play is an on going study that has its beginnings in 1932 when Mildred Parten (1932) expressed the concept that play developed in terms of social interaction and became more complex as children got older. She categorized play into six social groups: unoccupied, solitary, onlooker, parallel, associative, and cooperative (Parten, 1932). After Parten, Jean Piaget expressed that play should be looked at from a cognitive development viewpoint. Piaget's (1962) research showed that play starts as simple imitation that increases in complexity as the child's cognitive abilities increase and can be categorized into three stages of cognitive assimilation; functional, symbolic, and games with rules. Piaget's ideas build on Parten's by saying that as the complexity of the play increases so does the social interaction. Finally, Sara Smilansky added an important idea by stating that play is not a stepladder of levels, but an interchangeable mix of categories (Smilansky & Shefatya, 1990). She suggested that children can exhibit many different types of behaviors at different times and do not follow a hierarchal framework.

More recent theories have focused less on why we play and more on different ways to examine, investigate, and classify play. Catherine Garvey (1990) explained that

communication leads the way for play. Communication allows children to have play sessions where roles can be assigned, thereby allowing safe practice for future adult roles (Frost et al., 2008). Piaget (1962) believed that play was based on cognitive development and was hierarchal. For example, a child starts with simple play but as he or she becomes more cognitively advanced, more types of play are available (Piaget, 1962). Lev Vygotsky (1966) stated that play always has a purpose and is a framework from which children can safely push their limits. These ideas and frameworks help to define the characteristics of play and why children engage in play.

Currently, we categorize play by what the child is doing (i.e., play behavior), and how they are doing it in regards to others (i.e., interaction behavior), which is a combination of the social ideas of Parten and the cognitive ideas of Piaget (Maxwell, Mitchell, & Evans, 2008; Rubin, 2001). Kenneth Rubin (2001) developed the Play Observation Scale that provides a matrix that expands these basic ideas and then defines them. A study done by Maxwell et al. (2008) used categories to examine play and the environment. The play behavior categories were: dramatic/fantasy (e.g., pretending, playing house), constructive (e.g., goal-oriented, get to top of hill), functional (e.g., physical motor movement), games with rules (e.g., tag, dodge ball), and non-play (e.g., watching other, sitting). Interaction behaviors are categorized as: solitary (i.e., plays alone or independently, no connection to other children), parallel (i.e., plays beside another children, but does not engage them), positive interaction (i.e., plays with other children, activity oriented, converse about activity), and negative interaction (i.e., involves aggression) (Maxwell et al., 2008). Breaking down play into these categories allows for standardized observations to better evaluate the benefits of play.

Play Benefits

Physical. The category of physical development, or health development, is the most widely studied aspect of play mainly due to it being an easily measured attribute (e.g., balance, endurance, and pull-ups). Physical development is typically put into the two major skill categories of gross motor skills and fine motor skills (Frost et al., 2008). Gross motor skills are those that involve large muscle groups and help with mobility to get around an environment (e.g., walking and running) (Berk, 2002). Fine motor skills are those that involve smaller muscles and precise movement (e.g., the hand being able to grasp or manipulate an object) (Berk, 2002). Play helps to develop gross and fine skills by engaging muscle groups. Over time, this can then lead to new play behaviors as children expand what they are capable of doing.

Due to an increasingly sedentary lifestyle, the quality of children's health has become a major issue, especially childhood obesity (Natural Learning Initiative, 2010). Physical play behavior is usually referred to as functional play and includes actions such as swinging, running, and climbing bars. Functional play, in its most basic form, is physical activity and, therefore, can provide many health benefits to children. Three major types of functional play can be observed: (1) rhythmic stereotypes, which is found in very young children and focuses on motor pattern and skill development; (2) exercise play, which is found in older children and focuses on strength and endurance development; and (3) rough-and-tumble play, which is found in middle childhood and focuses more on social interaction (Pellegrini & Smith, 1998).

One study has shown that there is a positive correlation between increased physical activity, or play, and physical development (Stone, McKenzie, Welk, & Booth, 1998). Physical development usually takes the form of gross motor skill development and can include many benefits such as the creation of permanent muscle fiber (Byers & Walker, 1995), balance and coordination (Fjortoft, 2001), hand-eye coordination (Hudson, Thompson, & Mack, 2000), abdominal strength (Sallis et al., 1997), brain development, cardiovascular endurance (Baranowski et al., 1992) and lower blood pressure (Scheuer & Tipton, 1977). Byers and Walker (1995) have shown that repeated motor activity can effect multiple areas such as an increase in VO₂ Max, decreased heart rate during exercise, bone remodeling, and increased blood flow. In addition, some studies suggest that up to 60% of children age 12 and younger exhibit some modifiable adult risk factor that correlates with coronary heart disease and that being physically active in childhood can help to reduce this risk later in life (Baranowski et al., 1992; Stone et al., 1998). Functional play is important because it provides physical action and exercise that is essential for the overall health of children and allows for the development of motor skills that are needed for everyday life.

Emotional. Play is a time when children can run, jump, be loud, express their feelings and be themselves (Landreth, Hohmeyer, & Morrison, 1998). Play allows for the safe expression of strong negative feelings or anger, which, when resolved, leads to very strong positive feelings (Landreth et al., 1998). Play is not just a solitary activity through which emotions can help children to construct their identity and self-image. It can also be key in sociodramatic play (Hayward et al., 1974; Wolff, 1979).

Sociodramatic play is a step beyond playing pretend. It is creating roles within frameworks for themselves and others with rules where emotions and feelings are explored (Deunk, Berenst, & Glopper, 2008). Role-playing is important in various ways such as getting children to understand that other children have feelings and emotions as well, which can lead to a person using more positive social behavior (Berger, 2000).

Solitary and group play can allow children to benefit emotionally in many different ways. Play helps children deal with trauma by repeating scenarios and diminishing the feelings from it (Garvey, 1990; Hildebrand, 1994). It can be a way children deal with unpleasant situations through reenactment with a changed outcome (Barnett, 1984; Garvey, 1990). In fact, one study has shown that play in hospitals can help children to increase their perception of control over stressful procedures, thus making the procedures go more smoothly. Interestingly, the study also stated that hospitals are nullifying this benefit by making play areas more structured, which allows for less creative free play (Bolig, 1990).

Children should be allowed to freely express themselves, and play provides a comfortable and safe opportunity to do this. When children are comfortable and engage in free play, a general reduction of anxiety is noted (Barnett, 1990; Isenberg & Quisenberry, 2002). An increase in functional motor skills can allow a child to gain a sense of accomplishment (Davies, 1995; Hildebrand, 1994; McCune & Zanes, 2001) whereas decreased motor skills can lead to self doubts which can then affect self confidence and motivation (Hildebrand, 1994). Physical activity such as play has also been shown to increase self-esteem in children aged three to nineteen years (Ekeland, Heian, & Hagen, 2005). Some of the greatest benefits derived from play could include

development of high self-esteem and a good self-identity that can have a lasting affect on an individual into adult life.

Cognitive. Play is a source of constant cognitive development as it creates a sphere where a child can safely push beyond his normal behavior and move from mimicking adults to understanding the purpose behind those actions (Vygotsky, 1966). Play has been considered a necessary part of cognitive development (Ellis, 1973). Piaget believed that humans use their senses to learn from the environment and build upon it, which is a concept referred to as sensorimotor development. As children get older, their play with objects becomes more complex. Soon, they start to incorporate the environment into their play. Cognitive development from play is currently thought to occur in four general categories based predominately on Piaget and Smilansky's work: functional, constructive, symbolic/dramatic, and games with rules (Frost et al., 2008).

Play is the basis for academic learning and helps to promote problem-solving skills. In doing so, it provides an important connection to cognitive development (Frost, 1992; Frost et al., 2008). Play has been linked with improvements in convergent/divergent thinking (Barnett, 1990), language (Garvey, 1990; Hildebrand, 1994), attention (McCune, 2001), cooperative learning (making learning fun) (Kumar & Harizuka, 1998), and memory retention (Jensen, 1998). Children who engage in imaginative and cooperative play behaviors are better able to suggest alternate uses for objects (Dansky, 1980), which, in turn, allows for better problem-solving skills (Garvey, 1990; Kumar & Harizuka, 1998). It also helps children develop the ability to achieve flexible and innovative solutions to problems (Frost, 1992). A study done in 1979

showed that children who were allowed to participate in free play figured out how to address a problem the same as those who were taught the solution and concluded that free play is a superior method of training for problem solving skills (Smith & Dutton, 1979).

Play provides a unique learning experience that allows children to learn about the physical world. Through the play environment, children learn about the ecology of nature and its cycles such as weather, life and death, and food (Davies, 1995; Heffeman, 1994; Moore & Wong, 1997). Gravity, numbers, weight, speed, and height are also concepts that a child can learn in the outdoor play environment (Hildebrand, 1994). It can help promote learning concepts, such as balance and coordination, recognition of shapes and volumes, and perception of speed and distance (Davies, 1995). Other concepts such as how objects relate to one another and how objects can be put together to create other objects are also learned (Davies, 1995). Outdoor play provides an important role in childhood development by allowing children to experiment and understand the natural world at their pace.

Social. Social development could be one of the most important benefits of play and social play may be required for children to develop into “normal” adults who can function properly in society (Barnett, 1990). Social play stems from a basic human need to interact with others and begins the first time an infant smiles at its caregiver in response to stimuli (Frost et al., 2008). As toddlers, children begin to develop the concepts of “self” and independence. In preschool, self-awareness develops further as children begin to understand that they are separate and different from other children.

Self-esteem appears as children begin to judge themselves against others (Frost et al., 2008).

Play allows children to develop social skills in a non-threatening situation and understand how one should properly interact with peers (Isenberg & Quisenberry, 2002). A review by Lynn Barnett suggests that group play helps children establish social and cultural ideas that will allow them to function in an adult world. These ideas include being able to correctly interact socially with the world, being able to communicate properly with others, and understanding social hierarchies such as a boss versus an employee (Barnett, 1990). In addition, social play allows children to develop the concept of perspective taking, which is having consideration for others feelings or understanding their point of view. This understanding of others then helps to create a sense of moral ethic (Selman, 1976).

Play provides an experience that allows children to engage in social skill learning such as planning ahead, gender roles, positive feedback, turn taking, and sharing, all in the context of a small social group (Garvey, 1990; Hildebrand, 1994). Play also helps them to manage their emotions, learn self-control, address conflict, negotiate, and share in the context of power, space, and ideas (Garvey, 1990). Play allows children to express themselves, interact with the world, and, in turn, see how the world interacts with them. This allows children to learn who they are, for them to feel comfortable with their feelings, and how to correctly express these feelings in a social context (Isenberg & Quisenberry, 2002).

Play and Age

Children typically engage in different forms of play at different ages. The environment for the play of infants and toddlers should be designed around sensory stimulation, object play, and exploration. Motor skill development play is important at this age as well as playing with dolls and books and engaging in pretend play with others. Preschool aged children (2-5) engage in more make-believe play, group play, and more exercise play. Structures such as swings and climbers are used in these play areas. Construction play areas, such as sand, are very popular as well, so loose parts being available are important (Frost et al., 2008). School-aged children (5-12) are becoming more cognitively aware and seek order and structure in their play. This leads to more organized play such as soccer, basketball, and hopscotch. Structures need to support socialization as make-believe play slowly gives way to more social types of play. Construction play is still popular as is exercise play where children practice their athletic skills (Frost et al., 2008).

Environment Affecting Behavior

Robin Moore explained his thoughts on the connection between play and the environment, “Play is learning in its most experimental sense, but it is only as rich as the supporting social and physical environment” (Moore, Goltsman, & Iacofano, 1987, p. XI). A well planned play environment should encourage children to be social, make decisions, play at higher levels of participation and offer unique opportunities that integrate all areas of child development (Jambor & Hancock, 1988). The benefits that children receive are a result of the play behaviors that the environment can afford, and the

environment can influence play behaviors by either promoting or discouraging them (Barbour, 1999; Campbell & Frost, 1985; Hayward et al., 1974).

The Environment and Affordances

Environments were initially evaluated by simply looking at what was there. No real framework of how to quantify an environment existed. In 1954, Barker and Wright put forth the concepts of the psychological habitat and behavior setting. Barker and Wrights' concepts presented a different way to examine an environment from a designer's viewpoint. They stated that the functionality of an environment should not simply be based on what is there, but also on the relationship between the attributes of the person and the attributes of the environment. From this relationship, Barker and Wright (1954) found that certain patterns of behavior can be observed, such as children like to hide in shrubs, so if there are shrubs in the environment, then children might hide in them. James Gibson (1986) added to this idea by concluding that elements in the environment afford multiple actions and behaviors (e.g., a rock outcrop affords grasping, climbing, and jumping-off opportunities). Harry Heft (1988) expanded this framework by saying that instead of describing an environment based on its form, one should describe an environment based on its functions or what it affords a person to do. A hill affords many possibilities such as running, jumping, rolling down, and lying down, whereas a swing might encourage swinging, pushing, jumping, and spinning activities (Heft, 1988).

The concept of affordances gives the impression that a user can access all of the affordances available to them, but this is not necessarily the case. Marketta Kytta (2004)

stated that the idea of affordances could be broken out into categories of actualized affordances (things you actually can do) and passive affordances (things that you might be able to do, but cannot for some reason) that are controlled by external influences, such as culture and society. Society and cultural influences have a direct affect on how a person perceives and interacts with an environment. Furthermore, Kytta (2004) stated that the idea of affordances as a framework can be made into four general environmental categories based on what you can and cannot do. Her categories of bullerby (i.e., an ideal environment for play), cell (i.e., do not even know about affordances of a place), wasteland (i.e., very limited affordances), and glasshouse (i.e., lots of affordances, but can not engage with them) provide a different framework to evaluate environments (Kytta, 2004). Laura Berk (2002) gave additional examples of children wanting to throw a ball around but if it is too heavy then they cannot, or if the monkey bars are too high or too big diameter for small hands then they can not use it.

Affordances are the interconnectedness between the person and the setting, and this relationship is key to what children will do in that environment (Fjortoft & Sageie, 2000; Gibson, 1986). There is also the problem of how an adult sees an environment as compared to a child. Play environments have been traditionally designed by adults with a predetermined function or action in mind for that environment. To a child, this predetermined idea may not afford the same relationship expected by the adult. Even more so, actions outside of the predetermined function may not be safely afforded and are typically frowned upon (e.g., standing on a swing). The idea that everyone can do everything in the environment or that everyone will see the environment in the same way is not the case. There is a real and specific relation between each user and the setting.

What this means is that each person will see an environment in his or her own way.

Everything that makes a person who they are, such as age, race, or cultural background, influence how they use and see an environment.

Affordances Influencing Behaviors

What affordances the playground offers can effect what types of behaviors occur. Studies have shown that the play behaviors of children are influenced by structures at the site (Farley, Meriwether, Baker, Rice, & Webber, 2008; Frost & Strickland, 1985), presence/absence of encapsulation spaces (Brown & Burger, 1984), challenge and complexity (Frost & Strickland, 1985), graduated challenges from easy to harder (Bruya, 1985), diversity of the environment (Moore, 1986a), equipment type (e.g., static vs. moving) (Frost & Campbell, 1985), the amount of loose parts around (Maxwell et al., 2008; Nicholson, 1973; Rogers, 1985), the amount of stimuli that interests the child (Ellis, 1973), and the amount of space per child (Dempsey & Frost, 1993). Many traditional play environments are too sanitized and highly maintained for children to receive optimal benefits from free play (Moore, 1986a). In addition, many traditional playgrounds are just woodchips and structures built from steel or plastic and have no character to them. Another factor is maintenance, where children are not allowed to play because it may mess up the aesthetics of the area. For example, planting flowers beds, shrubbery, or trees because they look nice and then not allowing the children to interact with them, or constantly mowing and picking up loose items such as pine cones so children do not have objects to engage in pretend play (Moore, 1986a). Issues such as

these can reduce the quality of the play environment by reducing the amount of stimuli and interest it provides.

Playgrounds come in various shapes and sizes but always contain things that children will play on or with. While play can occur in every part of a play environment, including the paths or open space, most play is typically concentrated on physical structures (Frost & Strickland, 1985; Moore et al., 2005). Structures, when present, can have a large effect on what behavior types are occurring. Studies have shown that these structures need to be varied, diverse, and plentiful (Fjortoft & Sageie, 2000; Hildebrand, 1994; Moore, 1986a; Moore et al., 1987), have a graduated challenge structure (Barbour, 1999), allow for changing stimulus (Ellis, 1973), allow children to modify the environment (Hayward et al., 1974; Wolff, 1979), and contain loose parts (Maxwell et al., 2008) in order to provide an interesting and stimulating environment that supports many beneficial play behaviors.

The Environment - Structured vs. Unstructured

Playgrounds are the sum of all the individual pieces of equipment used and spaces created. The types of equipment and spaces present can affect how children play in the environment and can be grouped into 2 basic ideas: structured and unstructured. An example would be a swing (structured) as compared to a sandbox (unstructured). Due to physical and societal constraints, a swing is really only for swinging, but a sandbox is what ever the children can create there. Studies suggest that these two play environments can promote different types of play behaviors (Campbell & Frost, 1985; Hayward et al., 1974). Ann Barbour (1999) examined play behavior in second grade school children and

found that play in a playground that combined exercise equipment with unstructured opportunities encouraged both physical and dramatic play, along with an increase in social play. One playground type is not necessarily better than the other, however, each environment can promote different behaviors. For example, a preschool might want a structured playground with a focus on exercise play because children of this age need to develop motor skills and are full of energy, whereas an elementary school might want an unstructured playground because the children are more likely to engage in social and dramatic play.

A structured play environment is often focused on a specific type of play behavior, such as functional play. The surplus energy theory shows its influence as designers typically build structured play environments with play equipment that is geared towards physical activity (exercise). A structured playground was found to promote more functional physical play and less dramatic play in 7-year-old children as compared to an unstructured playground (Barbour, 1999). This study also showed that because the play was mostly physical, it tended to separate children into groups based on their physical skill level (Barbour, 1999). Campbell and Frost (1985) observed the behaviors of second grade children in both structured and unstructured playgrounds and found that functional play in the structured playground accounted for about 77% of play as compared to 43.7% in the unstructured playground.

A number of studies show that structured play environments are not as good as unstructured play environments at promoting social play types such as dramatic or fantasy role-play. Campbell and Frost's study (1985) found that 7 to 8 year olds engaged in dramatic play about 2% of the time in a traditional structured playground as compared

to an unstructured creative playground where they engaged in dramatic play about 37% of the time. A study by Maxwell et al. (2008) examined preschool children's play before and after the addition of loose parts, a component of unstructured play, and found there was an increase in dramatic play as well as more communication and negotiation. A separate study examined play in various playground types and reported that as children aged from preschool to school aged, they spent less time at a traditional playground and more time at the creative and adventure playgrounds. This led the authors to conclude that the structured play environments, as compared to the unstructured play environments, did not meet older children's needs for creative and dramatic social play (Hayward et al., 1974).

In contrast to a structured play environment, an unstructured play environment tends to have multiple uses and is not focused on a certain play behavior. Unstructured play environments, in essence, want the children to create their own way to play on the playground. The playground should make children think, "What am I able to do" instead of "what am I suppose to do?" Unstructured environments also incorporate lots of loose parts (e.g., tricycles, balls, or a shopping cart, or natural elements such as sticks, pinecones, and leaves) that let children come up with a way to play with them. This type of environment helps to promote cooperation and mitigate segregation due to physical level because it is not based on physical activity elements such as a climbing station (Barbour, 1999). However, while unstructured play environments are more focused on creative/social play and not "things to do," it has been suggested that they should contain some conventional structures to help increase variety and complexity (Frost & Strickland, 1985; Moore, 1986b).

Frost et al. (2008) did a review of play element studies that showed that as children got older they interacted with different pieces of equipment. Toddlers' popular choices for fixed equipment were structures that allowed for symbolic play, forts, slides, hills, and swings. For loose equipment, the popular choices were sand, tricycles, dress-up items, and scoops. The loose parts were far more used than the fixed equipment (71% and 29%, respectively) (Frost et al., 2008). Most preschool children played in the sand areas, open space, superstructure, swings, and shrubs; there was also high use of the vehicles when available. School aged children chose open spaces, superstructures, loose parts, swings, slides, and climbers. Once again, vehicles were very popular for various type of dramatic play (Frost et al., 2008).

A playground has a direct effect on what happens by affording different things to different people. This specific relationship between a user and the playground will affect what that user can do. Major factors affecting this relationship are the physical elements present in the playground as well as the range of freedom that children have to interact with those elements.

Losing the Connection to Nature

Video games, television, computers, lack of access to parks (walking distance), overly protective parents, over-programming of time, and the thought that play is a waste of time are helping to create increasingly sedentary lifestyles for children where they do not have an opportunity to play or are pushed towards organized sports as an adequate replacement (Elkind, 2007; Moore, 1996; Trust for Public Lands, 2004). About 82% of mothers listed safety as a concern and 85% stated that computers and television are the

top reason for their children not getting outside (Clements, 2004). In a comparison with children from the 1960s and the late 1980s, Jambor and Hancock (1988) found that children in the year 1988 had a higher fat percent per body weight and were less physically fit than children from the 1960s. Even in settings where physical activity is expected, such as physical education classes in preschools, there can be a low level of actual physical activity (Dowda, Sallis, McKenzie, Rosengard, & Kohl, 2005). Media also influences young children, called “Age compression,” where they are expected to act like adults instead of just being children (e.g., Spongebob Squarepants has a job and aims to be employee of the month) (Elkind, 2007). Even the amount of time children aged 3 to 12 years played decreased approximately 16% from 14.5 hours a week in 1981 to 12 hours a week in 1997 (Hofferth & Sandberg, 2001). More recent data suggest a further decline for children aged 6 to 12 from 10.3 hours a week in 1997 to 9.9 hours in 2003 (Hofferth, 2009).

Getting in contact with nature has historically not been a problem; it was the only place to go. Over the last 200 years there has been an incredible amount of urbanization that has replaced wild nature with buildings and concrete. For example, 79.2% of the US population lives in an urban setting where vegetation coverage in central urban areas can be as low as 20% (McKinney, 2002; USCB, 2001). Children now play in the ever-shrinking natural areas that are left over after suburbanization or, in an increasingly common situation, in the street or alley because there is no natural area left (NLI, 2010). Getting children into the outdoors is now more associated with organized sports or playgrounds that are a sea of concrete instead of playing in a field or the woods (NLI, 2010). This has led to concerns that acknowledge the importance of play in relation to

nature and a push to get children back outside. Richard Louvs' book "Last Child in the Woods" introduced the term "nature deficit disorder" and also helped create the "No Child Left Inside" act (Louv, 2005; National No Child Left Inside Coalition, 2010). The Children and Nature Network currently talks to over 100 different organizations in the fields of education, government, and conservation about the topic of getting children back involved with nature (Children and Nature Network, 2009).

Natural areas can offer more than just places to play and fall into an idea called "place-based education." David Sobel defines place-based education as teaching concepts to children using the local community and environment with an emphasis on hands-on, real-world learning. These types of natural learning environments not only improved school test scores on various subjects such as reading and the social sciences, but also helped to instill a moral ethic about nature that tracks into adulthood (Bixler, Flyod, & Hammit, 2010; James, 2010; Sobel, 2004). Swedish educators have been advocating a similar philosophy since the 1980s through a philosophy espousing that nature and the outdoors should be a part of every child's life (Anggard, 2010). This has led to the creation of outdoor preschools that are based entirely in and around nature with the idea of nature as a classroom, a home, and an enchanted world (Anggard, 2010).

The issue of whether recess is important to the development of children or if it is simply a break from school with no benefits is constantly being examined. A study done in 2007 showed that children who engaged in daily recess were better behaved than those who did not and recommended at least one daily recess (Barros, Silver, & Stein, 2009). Recess can also be a great opportunity for children to engage in free and unstructured play without being directed by a teacher (Frost et al., 2008). Traditional recess should

not be limited in order to make more time for academics. When given a quality environment in which to play, children will benefit from it at their pace and within a social context or group (Frost et al., 2008).

It is very obvious that the lack of access to natural places is a growing concern for many (National No Child Left Inside Coalition, 2010). People are beginning to understand the importance of nature and want more of it in their children's lives. One area that has responded to this concern is playground design. The push for getting children to connect more with nature has led to the creation of playgrounds that are more focused on natural elements rather than traditional equipment. These playgrounds try to stimulate all the senses by focusing on textures, smells, visual cues, audible cues, and social interactions. In addition, they are designed for multiple uses and open/creative play (Fjortoft, 2004; Moore et al., 1987; Moore & Wong, 1997).

The term "natural playground" is a somewhat loose term and means different things to different people. Playground environments featuring natural elements are often labeled as "naturalized" or "green" in an effort to better explain their unique qualities. A natural playground would have none of the typical equipment we think of that makes up a playground and instead is based completely on natural elements such as hills, logs, stream beds, or groves of trees. A naturalized playground would be a playground that incorporates both traditional equipment and a high level of natural elements. One of the goals of the study is to identify what average people consider their playground to be: natural or naturalized. For this study the term naturalized will be used due to it being a more encompassing term.

Natural Playground Design

Playground design that is based on nature is not a new idea. Sweden has a long history of promoting that the natural world is a great source of knowledge, and learning must be based on observations and experiences (Anggard, 2010). Since the 1950s Swedish children have had the option to attend preschools that were built specifically for different types of outdoor experiences. Their preschools not only use the outdoors as a classroom but also go further by having children take naps and use the restroom outdoors. This creates a place where children are comfortable and can have fun, play, and learn while in contact with nature.

In America “sandgartens” were popularized starting in Boston in the late 1800s (Frost et al., 2008). The basic idea was to have a large sand area in an established park to create a place that was natural and modifiable. Adventure playgrounds, pioneered in Europe, gained some traction in the U.S. during the 1970s. Typically located in a vacant lot, maybe before or after a construction project, they offered a completely modifiable area where children built and played with whatever people brought to the lot. Even though there were not specifically focused on natural elements, children could dig in dirt, play in sand, or float on a boat if the site had water. Adventure playgrounds saw limited implementation in the U.S., as adults saw them as dirty and unsafe (Frost et al., 2008).

The environmental yard, located in Berkeley, California, was started in 1971 by Robin Moore and Herb Wong as early experiment in natural playground design. The environmental yard took an existing school playground that was primarily concrete and turned it into a natural, environmental learning area with trees, large rocks, a pond, and

even a working stream (Moore & Wong, 1997). The children loved it, but it slowly began to lose many of its diverse natural elements. New earthquake standards meant 30 shade trees were replaced with basketball courts and flat grass; the lower pond was replaced by commercial play equipment; the waterfall and stream are not allowed to function any more; and the upper pond has a fence and a locked gate to only allow access for formal learning (Moore & Wong, 1997). The environmental yard had contained many ideas and concepts that we now see only in nature centers and not school playgrounds.

School playground design has typically focused on safety and standard equipment, not natural elements, with the exception of some trees and open fields. During the late 1990s we began to see more designers adding in natural elements or taking completed areas and making them “green” by adding in more trees and vegetation (NatureGrounds, 2009; Playcore, n.d.). More recently some companies such as The Natural Playground Company or Bienenstock Natural Playgrounds specifically focus on using nature as the main design element with little to no standard play structures (Beinenstock Design and Consulting, 2011; The Natural Playground Company, 2011).

Advantages of Natural Playgrounds

Access to natural outdoor play environments has decreased in the urbanized world due to perceived and real violence, commercialization and privatizing of playtime, and a public that has lost interest in neighborhood parks (Wridt, 2004). Moore’s study in 1986 found that when children are asked to draw or talk about their favorite places to play, the natural environment typically ranks highest, whereas concrete surfaces or buildings are

the least preferred (Moore, 1986a). Other studies have shown that children seek out play environments that are outside, natural, well vegetated, and have loose and modifiable parts (Hart, 1979; Maxwell et al., 2008).

Researchers believe that children prefer natural environments because they provide a highly stimulating experience that allows for a large variety of play behaviors and affordances (Frost, 1992; Fjortoft & Sageie, 2000; Frost & Sunderlin, 1985; Herrington & Studtmann, 1998; Moore & Wong, 1997). A study done in 2004 also suggested that playing in a completely natural landscape could benefit children greatly by improving motor development through those different types of play (Fjortoft, 2004). A similar study showed natural areas promoting more social interaction as children created common names for areas that then had specific interactions associated with it, such as “the spaceship” (Fjortoft, 2001). Natural play environments also appeared to aid in the development of spatial awareness and encourage an increase of dramatic and constructive play while decreasing repetitive functional play (Herrington & Studtmann, 1998).

A study by Susan Herrington (2008) showed that an outdoor play environment with plants had significantly more positive responses about it than a play environment without plants. About 79% of the participants thought that the addition of plants would provide more sensory stimulation to the environment (Herrington, 2008). Children with attention deficit disorder functioned better in normal activities and showed longer attention spans after they took a walk or played in “green” areas such as parks (Taylor, Kuo, & Sullivan, 2001). Children, as well as teachers and parents, also showed a preference for play environments that had advanced landscaping, were spacious, and were well vegetated allowing for a variety of play behaviors (Ozdemir & Yilmaz, 2008).

Research on Naturalized Play Environments

Research specific to naturalized playgrounds is somewhat limited and has typically concentrated on quantitative data, points of view from children, and data sets from natural landscapes. Most research has been focused on how natural areas can be beneficial for child development. More recent work has explored risk-taking by children in naturalized environments or teachers' perceptions of vegetation in the playground (Herrington, 2008; Sandseter, 2009). A comprehensive review of the literature brought four main points about naturalized playgrounds to light. These points are summarized by: (1) quality of child development; (2) children interacting with the environment; (3) how the environment is used by others and beyond just a place for play; and (4) implementation and concern with naturalized playgrounds.

Child Development

Many researchers believe that natural play environments are better for children to play in because they provide more opportunities and affordances which leads to more play activities and thus greater developmental opportunities in physical, social, emotional, and cognitive categories (Heft, 1988). A study done in 2009 used geographical information systems (GIS), global positioning satellites (GPS), and observations of children to examine a natural play environment and reported that the more varied the environment was, the more activities were present (Fjortoft, Kristoffersen, & Sageie, 2009). This increase in play behaviors was also found in a school playground that was built with natural elements as a focus (Samborski, 2010). Inngunn Fjortoft (2004) observed children aged 5 to 7 years old in a completely natural

environment and showed that not only was it a suitable playground, but it also provided a complex environment that promoted all types of play from functional, to dramatic, to constructional. Additionally, simply adding in natural landscape materials, such as stone pavers, to a traditional playground promoted more varied play from children aged 2 to 6 years old (Herrington & Studtman, 1998). These studies help to show that a natural play environment can provide a variety of play activities to children.

A wide variety of play activities can lead to different developmental benefits. Children aged 5 to 7 years old showed more development in gross motor skill development after playing in a natural environment as compared to children in a traditional play environment (Fjortoft, 2001). A naturalized play environment promoted more social play and less segregation due to physical skill in children aged 2 to 6 years old (Herrington & Studtman, 1998). Children were also found to be more relaxed and engaged in less fighting in more highly vegetated settings as opposed to a setting that did not contain much vegetation (Moore, 1986b). Having nature nearby also lessened the impact of stressful life events, such as moving, for children aged 7 to 10 years old (Wells & Evans, 2003). Third and fourth grade students attending schools with large and well vegetated school yards had lower body mass indexes than students attending comparative schools with poorly vegetated yards (Ozdemir & Yilmaz, 2008). While statistical data may indicate that naturalized playgrounds are beneficial, it is also important to understand the general perception of naturalized playgrounds because quantitative statistical data may not tell the whole story (Fjortoft, 2001; Heft, 1988; Herrington & Studtmann, 1998; Taylor et al., 2001; Wells & Evans, 2003).

Use of the Outdoor Environment by Children

Movement is not only one of the most natural forms of learning, but being outside and moving allows children to interact with and create bigger worlds for themselves (Bilton, 2002). Unraveling how children interact with the playground is important in understanding how natural playgrounds are working. Moore examined how children interact with the natural environment in his book “Childhoods’ Domain” and found that after play at their own homes, the most frequently reported venues for play were open spaces, vegetation, and natural ground surfaces (Moore, 1986a). He also performed a study that showed that while both girls and boys enjoy natural elements in a playground, they did so differently; girls tended to play with the natural elements that made places for them and boys tend to play in natural vegetation, the pathways, or meadows (Moore, 1986b). Later, Moore and colleagues conducted a post occupancy evaluation study on the Kids Together Play Park in 2004 and reported that most activities occurred on structures, pathways, and in gathering areas as opposed to a statue area, an area for tree conservation, and benches (Moore et al., 2005).

A few studies have examined the elements that children interact with in an environment. A study by Herrington and Studtman (1998) that observed that children interacted with plants, grass areas, uncut grass areas, sand, water, and spaces that children could name such as calling a bunch of shrubs the “Eagle’s Nest.” Children playing in a completely natural play environment, i.e., woods and meadows, engaged mostly in symbolic play on steeper slopes, in shrubs, and to a lesser extent, in and around trees (Fjortoft & Sageie, 2000). Functional play such as climbing rocks and trees, running, and sliding also occurred at these locations, but were less frequently observed (Fjortoft &

Sageie, 2000). Spaces that were more open with sparse vegetation promoted the games of hide and seek or tag (Fjortoft & Sageie, 2000). A study of a naturalized playgrounds found children have a preference for interacting with boulders, wildflowers, trees, ponds, and gardens (Samborski, 2010). Understanding how children interact with the naturalized playground is key in creating better future playgrounds.

Use of the Environment by Others

A naturalized playground should provide a rich and stimulating interactive environment to play in, but children themselves cannot always make the best of it and might need assistance (Tranter & Malone, 2003). Whoever is supervising the children during playtime needs to be more than just a supervisor; they need to be a person who helps to guide activities (Hildebrand, 1994). Margaret Davies' (1995) review of literature found that teachers think of the outdoors as a place for loud and active play and a break for teachers. She also reported that when teachers engaged in play with children in the outdoor environment, either by creating scenarios for them or just giving them ideas during play, more complex and productive play occurred (Davies, 1995).

Outdoor environments have a great potential for being used for new or different learning experiences that may be better suited for the outdoors as opposed to indoors, such as planting a plant or collecting bugs off of a plant. A study done in 2007 showed that in the United Kingdom, places with naturalized playground environments were rarely used beyond simply affording a venue for playtime activities (Maynard & Waters, 2007). Many teachers implemented class the same whether outside or inside; there was no special use of the outdoor environment. A separate study examined two different types

of schools: one that used the natural playground as a specific outdoor learning area and one that did not. The investigators found that these philosophies had an impact on how the children used the playground: either as a place to let off steam or as a place to explore and learn (Tranter & Malone, 2003). This idea that philosophies can influence how children use a play environment can also be seen in the other direction; the environment itself can help to determine how children play. For example, children in a very bio-diverse playground saw a grass field as a place for insects or other animals, sports, rolling around, or talking to others, while children in a playground that was devoid of most vegetation saw an open grass field as boring, dusty, and disappointing when it was soggy (Samborski, 2010).

Taking advantage of a natural playground as an outdoor classroom is something that is often overlooked (Maynard & Waters, 2007). In addition, many teachers do not understand how to use the playground beyond a place for play (Maynard & Waters, 2007). Knowing how other natural playgrounds are used beyond recess could be very helpful when designing new ones.

Implementation and Concern

Before the playground can be used as an outdoor classroom, it has to be built. Building a naturalized playground is complicated, and studies have shown that there are many concerns and barriers to the creation of a natural play environment, such as safety standards, threat of lawsuits, and fear of injury (Little, 2010; Moore & Wong, 1997). Risk is always present in any environment and while children push their limits, they tend to not go beyond them (Sandseter, 2009). A study done in 2009 looked at natural

playgrounds and the risk associated with them and found that even though there was not a statistically significant increase in injury, teachers felt that the area was more risky. Because of that, they acted as supervisors of the playground rather than helpers of play (Bundy et al., 2009). Examining the issues involved with perceived risk and the naturalized playground is important because some may not be willing to trade the benefits of a naturalized playground for the perceived increase in risk.

Current Need to Understand Natural Playgrounds

Play is very important for childhood development as it helps to promote many different types of benefits such as physical and social. The environment that children play in can have an affect on what types of behaviors occur, which in turn affects the types of benefits afforded. Unplanned urbanization has not only led to the reduction of natural spaces, but also to the reduction of access to natural spaces. This loss of connection to real natural areas has led to the creation of playgrounds that are attempting to recreate the benefits of natural landscapes. Research on naturalized playgrounds is somewhat limited at this point due to the relative newness of these playgrounds and has been focused on quantitative data (Fjortoft, 2004; Fjortoft & Sageie, 2000; Herrington & Studtmann, 1998; Taylor et al., 2001). Most studies have examined what children are doing in the environment in regards to development, but few have investigated adults' perception of children's interactions with the environment. Understanding adult perceptions of naturalized playgrounds is an important step toward improving them and creating better ones.

To address the need to better understand naturalized playgrounds from different perspectives, this study investigated how various adult participants at educational facilities perceived naturalized playgrounds. Naturalized playgrounds, while still relatively new, are becoming more viable options in playground design and examining perceptions of them will help us to understand if they are recreating a connection to nature as well as providing a working and fun play environment.

CHAPTER III

METHODOLOGY

Research Questions and Design

This study investigated how adult participants at educational facilities perceived naturalized playgrounds and had three objectives: (1) to understand what elements are found in naturalized playgrounds and to see what participants knew about these types of playgrounds; (2) to examine participants' perception of the playground as an environment to see if it is a viable play option; and (3) to understand how the participants see the playground being used by children.

For this study a semi-structured interview was used to collect data because it aims to understand the thoughts and ideas about naturalized playgrounds based on participants' personal experience with children and the playground environment. Previous studies have effectively explored different perceptions of outdoor play spaces using interview methods: perception of playground aesthetics (Brown & Burger, 1984), perception of vegetation in preschools (Herrington, 2008), perceptions of a naturalized playground (Moore et al., 2005), effects of a more vegetative schoolyard on physical activity in teens (Ozdemir & Yilmaz, 2008), and teachers perceptions on learning in a more natural playground (Maynard & Waters, 2007).

Based on my research, and for consistency when talking to participants about different types of playgrounds, the following definitions for were used. A traditional playground is a typical generic playground. It has a large open grass space, a large hard surfaced area, play structures that are built out of steel or plastic that are surrounded by

woodchips or rubber mulch, and contains little to no vegetation. The emphasis of this playground is to promote physical play. A naturalized playground is designed with natural elements as its' focus and promotes interaction with those natural elements. These playgrounds could have some manufactured structures. A natural playground is similar to a naturalized playground, but differs by not containing any manufactured elements. All playground types in this study were understood to be designed by someone, they were not just naturally occurring.

Setting

This study sought to find locations that would be considered naturalized or natural per the definitions given previously. A few criteria were used as a baseline for deciding if a location should be included in the study. These criteria were that the environment was designed with natural elements being the focus of the design and that the children were expected to interact with the natural elements in the environment. For example, a school would work, but a public playground would not. Sites were identified by searching the Internet with terms such as “natural,” “naturalized,” or “green” in relation to play environments. Some sites were identified by word of mouth after talking to participants about naturalized playgrounds. Each site contacted was verbally asked to validate whether it matched the criteria or not. It also needed to be a place where there was a consistent relation between the participant, the children, and the playground. The sites tended to be at educational facilities.

Thirty locations were initially contacted with a total of 14 sites willing to participate. These sites represented six different designers and were located in ten

different states. The average age of the playgrounds was 3.5 years. The average age of the children who used the playgrounds was 5 years and they played in the playground for a median time of 90 minutes per day. Studies that have focused on perceptions and themes have ranged from 87 interviews to 4, so the sample size was deemed acceptable (Mason, 2010). Information about the sites is shown in Table 1.

Participants

To find a participant, the administrator of each location was contacted and explained the scope of the study. Then they were asked if they wanted to be in the study

Table 1
Site Location Information

Site	Location	Age of playground	Type of facility	Designer
A	Utah	7 years	Nature center	Darrell Schmitt Design Associates
B	Iowa	2	Preschool	Natural Playgrounds
C	Utah	.5	Preschool	Gbrowndesign
D	New Hampshire	3	Elementary	Natural Playgrounds
E	New York	8	Preschool	Earthplay
F	Pennsylvania	8	Preschool	Earthplay
G	New York	3.5	Preschool	Earthplay
H	Oregon	2	Preschool	Earthplay
I	Montana	2	Elementary	Natural Playgrounds
J	Oregon	4	Preschool	Earthplay
K	Ohio	3	Preschool	White Hutchinson
L	Massachusetts	5	Preschool	Natural Learning Initiative
M	Massachusetts	2	Elementary	Natural Playgrounds
N	North Carolina	13	Preschool	Natural Learning Initiative

and for permission to interview a staff member. It was then the administrators' duty to discuss the study with their staff and identify one person who was willing to do an interview. The criteria for the study participants was that they interacted with children and the naturalized playground environment on a regular basis as well as being interested in how the environment is affecting children's play. These individuals tended to be teachers, as well as a couple of supervisors, depending on time constraints and willingness to be interviewed. Each site only provided one participant. Participant information can be found in Table 2.

Table 2
Participant Information

Site	Type	Age of children they interact with (years)
A	Supervisor	7
B	Teacher	5
C	Teacher	5
D	Supervisor	5
E	Teacher	5
F	Teacher	5
G	Teacher	5
H	Teacher	5
I	Teacher	8
J	Supervisor	5
K	Teacher	5
L	Teacher	5
M	Teacher	6
N	Teacher	5

Collection of Data

A five-page survey instrument was used to better understand how teachers perceive their naturalized playgrounds. In the first section an inventory was completed and simple background questions were asked. The second section asked more in-depth questions about the content and character of the playground environment. The third section asked participants about what activities they saw children doing and where. The survey, referred to as the “Interview Packet,” can be found in Appendix A.

Data were collected using semi-structured phone interviews that lasted an average of 50 min. The interview began with participants completing the inventory checklist to identify which elements were present. Next, the background questions were asked. Lastly, the more detailed perception questions were asked. The average time spent on each section of the study was 10 minutes, 3 minutes, and 37 minutes, respectively.

Analysis

The analysis of the interviews was done using a grounded theory approach (Glaser & Strauss, 1967). Grounded theory looks at broad data and examines the connections between them to inform and help create the next set of ideas that then help to create the next set. It does not look for an answer right away, but instead looks for common patterns or codes and asks, why do those patterns exist and what do they mean? Maynard and Waters (2007) used this approach in their study when examining teachers and how they used natural play environments for educational purposes. The results from this study were reported in the form of common themes. A theme can be thought of as “the classification of more discrete concepts” and has been referred to as codes, links,

expressions, segments, or incidents (Ryan & Bernard, 2003, p. 87). In this study, a theme was a connection or link between ideas that was expressed by at least 25% of the participants. This represented the lowest common threshold needed to ensure that every question was represented by at least one theme. It was decided that having more common themes was better than having some questions not represented at all. Themes were found by using multiple coding techniques such as repetitions, metaphors, and constant comparison.

The themes for each question were determined using the following procedure. First, all responses to a question were put into an Excel spreadsheet and were separated by site. The responses were then broken down into sections, which could consist of one sentence or many depending on the flow of the ideas. Notes were then made for each section about what was discussed. The notes were then compared in order to create more standardized notes that began to categorize the responses. A third pass was then done to condense similar notes into bigger ideas. A fourth pass condensed ideas even more, if possible. These ideas were then counted and became themes. A theme was only counted once per site in each question to prevent redundancies. For example, a participant at a site might talk about opened ended play opportunities three different times in one question, but it would only count as one time for that question. Table 3 shows an example of this method of theme determination for a question pertaining to how participants thought the playground provided a connection to nature.

To better investigate the themes, they were reported in two levels: top themes and common themes. Top themes represent the most common ideas cited for that question. A study by Ryan and Bernard (2003) showed that the validity of themes is based on the

Table 3
Example of Code Theme Determination

Comment	Notes	Standardized	Condensed
We have bird feeders so there are lots of birds around. There are a lot of bird nests that are eye level. The kids are allowed to get close to look in the nest, but not touch, but that's part of their education, they don't touch, they can look. When there is a bird nest that is abandoned, we have moved them so that the kids can take them apart and look at them. (site A)	Experiencing nature close up, first hand	Interaction with animals	Interaction with nature

scientific measures of the process it took to get there as well as personal judgment of the reader (2003). A study done by Armstrong showed that inter-rater reliability was not a large concern when dealing with qualitative research because researchers typically find the same main ideas but might describe them in different ways; as such this study did not perform an inter-rater reliability test (Armstrong, Gosling, Weinman, & Martaeu, 1997).

Limitations

Relatively few playgrounds were identified that met the criteria for this study. In part, this is because playgrounds are not typically promoted as being natural or naturalized and are instead just referred to as a playground. In addition, the idea of naturalized playgrounds is an emerging one. Once a site was identified, there was not always someone who was willing to do an interview. However, since the number of participants required for saturation of data in qualitative studies varies considerably, the sample size obtained for this study was determined to be adequate (Mason, 2010).

Participants in this study were not required to fill out the interview packet, although they were encouraged to make notes and comments before the interview

occurred. This led to informal discussion of the questions rather than participants providing detailed information. This only was an issue for the question “How do children play on the playground environment?” as it led to more general answers as opposed to detailed information about what the participants were seeing. The use of themes when analyzing the data helped overcome this issue.

CHAPTER IV

RESULTS

The Inventory, Ideals, and Background

Table 4 summarizes the results obtained from the inventory. Site inventories can be found in Appendix B, Tables 21 – 34. Transcripts can be found in Appendix C.

Table 4
Elements Present in Eight or More of the Sites (Majority)

Category	Percent	Specific elements
Natural	66%	Water, sand, creative parts, useable open grass space, trees, topography, single trees, logs, flowers, shrubs, active parts, small rocks, places to interact with animals, gardens, different varieties of grasses, slides, hard surfaces, woodchips, trees in groves, enclosed structures, water features, stages, bridges, water tables, swings, large rocks, and climbable structures
Manufactured	22%	
Other	11%	

Inventory

Based on my research, when looking at multiple playground designers, no specific definition of what a naturalized playground should contain be found. There are some suggestions along the lines of it should contain natural elements and allow for interaction with those elements. This study preformed an inventory to better understand the general make up of naturalized playgrounds across designers. This is important because designers have the most interaction and influence with the general public as to what these playgrounds are and how they are viewed.

Forty-one different types of elements were identified from the collected data. The elements were then grouped together into three major categories: natural elements, manufactured equipment, and other. The natural elements category is made up of elements that predominantly come from nature and are in a natural form, such as trees or rocks. This category also includes structures such as tree houses because they were identified as being built from wood and fit into the natural feel of the playground. The manufactured equipment category is made up of elements that are mostly made of plastic or steel. The category of other represents elements that either did not directly relate to play, such as climate information systems, or were items used throughout the playground that did not fit into the other categories, such as loose parts. Table 5 shows the cited elements as an ordered set with frequencies.

The inventory provided 335 individual element observations, which in turn showed an average of approximately 24 elements per playground. To better understand what elements were most commonly found in a naturalized playground a majority was used. The majority was defined as eight or more sites and represented 63% of the element groups and 82% of all elements observed. The most common elements were: sand (100%), creative loose parts (100%), useable open grass space (93%), trees (93%), topography (93%), single trees (93%), logs (93%), flowers (93%), shrubs (93%), active loose parts (93%), small rocks (86%), places to interact with animals (86%), gardens (86%), different varieties of grasses (86%), slides (79%), hard surfaces (79%), woodchips (71%), trees in groves (71%), enclosed structures (71%), water features (64%), stages (64%), bridges (64%), water tables (57%), swings (57%), large rocks (57%), and climbable structures (57%). These majority elements show a break down of 66% for

Table 5
Playground Elements Groups Cited

Element	Category	Frequency	Element	Category	Frequency
Sand	Natural	100 (14)	Bridge	Manufactured	64 (9)
Creative parts	Other	100 (14)	Water table	Natural	57 (8)
Open grass space	Natural	93 (13)	Swing	Manufactured	57 (8)
Trees	Natural	93 (13)	Large rocks	Natural	57 (8)
Topography	Natural	93 (13)	Climbing structure	Manufactured	57 (8)
Single trees	Natural	93 (13)	Variety of trees	Natural	50 (7)
Logs	Natural	93 (13)	Natural enclosed space	Natural	43 (6)
Flowers	Natural	93 (13)	Ground design	Natural	43 (6)
Shrubs	Natural	93 (13)	Thermometer	Other	36 (5)
Active parts	Other	93 (13)	Natural open space	Natural	36 (5)
Small rocks	Natural	86 (12)	Multi-level structure	Manufactured	36 (5)
Animals	Natural	86 (12)	Dry riverbed	Natural	36 (5)
Garden	Natural	86 (12)	Rain gauge	Other	29 (4)
Variety of grasses	Natural	86 (12)	Pond	Natural	21 (3)
Slides	Manufactured	79 (11)	Musical instruments	Manufactured	21 (3)
Hard surfaces	Manufactured	79 (11)	Working stream	Natural	14 (2)
Woodchips	Natural	71 (10)	Sundial	Other	14 (2)
Trees in groves	Natural	71 (10)	Interactive panels	Manufactured	14 (2)
Enclosed structures	Manufactured	71 (10)	Wind gauge	Other	7 (1)
Water feature	Natural	64 (9)	Weather station	Other	7 (1)
Stage	Other	64 (9)			

natural elements, 22% for manufactured equipment, and 11% for the other category.

Additionally, all sites had access to water, although through different means.

While the element groups represented the individual parts of the playground environment on a detailed level, it also was important to understand what the make up of the playground environment was on a general level. To investigate this, the elements were condensed down to 25 categories as:

- Water
- Sand
- Topography
- Grasses
- Shrubs
- Trees
- Climbing Structure
- Multi-Level Structure
- Ground Design
- Natural Spaces
- Musical Instruments
- Enclose Structure
- Woodchips
- Rocks
- Logs
- Animals
- Slide
- Flowers
- Swings
- Gardens
- Bridge
- Weather
- Loose Parts
- Stages

Using this condensed list, 252 elements were noted from the 14 sites. Once again, natural elements accounted for 66% of the total categories, manufactured equipment accounted for 22% of the total element categories, and other accounted for 12% of the total element categories. This list represents the basic building blocks of naturalized playgrounds.

Background Questions

The background questions examined the participants' background on naturalized playgrounds in order to understand what they knew previously about naturalized playgrounds and how they educated themselves about them. The questions also investigated how they saw themselves during play and whether they considered their playground "natural" or "naturalized" based off of the definitions described previously. Table 6 summarizes the background questions.

What was your previous exposure to naturalized playgrounds? Participants were asked what their previous exposure was to naturalized playgrounds such as reading books or articles about naturalized playgrounds. When investigating the participants' background knowledge, it was found that participants had been previously exposed to

Table 6
Background Question Results Summary

Question	Response
What was your previous exposure to naturalized playgrounds? (% is based on N=14)	<ul style="list-style-type: none"> • Self study – 71% • Formal training – 57% • Direct experience – 42% • No experience – 21%
How do you see your role during outside time: as a facilitator or a supervisor? (% is based on N=14)	<ul style="list-style-type: none"> • Facilitator – 92.8% • Supervisor – 7.2%
Which do you think better describes your playground: Naturalized or natural? How would you define those terms?	<ul style="list-style-type: none"> • Naturalized – 64% <ul style="list-style-type: none"> ○ It was man-made ○ Taking a non-natural place and making it natural ○ Adding non-natural elements to a natural place ○ Does not allow for 100% exploration • Natural – 28.5% <ul style="list-style-type: none"> ○ Contains no manufactured equipment ○ Designed to be natural from the start ○ Would copy or mimic a natural environment ○ Contains ecosystems • Both – 7.1% <ul style="list-style-type: none"> ○ Will evolve from naturalized to natural

naturalized playgrounds in four ways. The most frequent way participants had learned about naturalized play environments was by reading articles or books on their own (i.e., self-study). The second most frequent was attending conferences or training classes where naturalized play environments were discussed in a more formal manner. The third was through participants citing their own direct experiences with nature. Some participants cited having no previous exposure or experience to natural play environments in an educational manner. These results are shown in Table 7.

Table 7
Education on Naturalized Playgrounds

Answer	%
Self-study	71
Formal training	57
Direct experience	42
No experience	21

How do you see your role during outside time: as a facilitator or a supervisor? Participants were asked whether they saw themselves during outside playtime as more of a facilitator or a supervisor. A facilitator role was defined as being active and engaging children during playtime, such as helping them come up with ideas and games, or showing them something as it happened on the playground. The facilitator role also inherently included some form of supervision as they are paying attention to other children as well as interacting. A supervisor role was defined as just observing the children during play and not engaging them in play. The role of facilitator was cited by 92.8% of the participants whereas the role of supervisor was cited by 7% of the participants.

Which better describes your playground: Naturalized or natural? Why? Participants were asked to explain which term, natural or naturalized, they thought did a better job of describing their playground. As a follow up question, they were then asked to explain/define what they thought the terms “natural playground” and “naturalized playground” meant.

A majority (64.2%) of the participants considered their playground to be naturalized, while a few (28.5%) considered their playground to be natural. One participant (7.1%) thought their playground was a combination of both and would start as naturalized and evolve into natural. These results are presented in Table 8.

A natural playground was also defined by four ideas. First, it contains essentially no manufactured elements. Second, it needs to be designed from the start to be a natural environment and not just have natural elements added to it. Third, it would represent a natural place such as the woods, or "... like going to a beach" (site G). Fourth, it would contain working ecosystems such as a forest or "... the stream and the pond" (site I).

One participant stated that they thought the playground could be both naturalized and natural. The main reason for this argument was that they saw the playground as a man-made thing at first but after many years of growth, it could become part of its own natural environment. For example, "Once it matures I might be able to describe it more as a natural environment" (site J).

Table 8
Which Better Describes Your Playground?

Answer	%
Naturalized	64.2
Natural	28.5
Both	7.1

Ideals

Participants were asked how well they thought their playground provided some of

the elements of nature, such as ways for children to modify things or experience nature, on a scale of 1 to 4, with 1 being poor and 4 being excellent. The results are shown in Table 9. Thirteen of the fifteen questions were most frequently answered with “excellent,” as in the teacher thought that his or her playground did an excellent job in providing what that question asked. The other two questions were answered “good.” The answers of “poor” and “fair” were mentioned but were not the most frequent answer on any of the 15 questions.

Table 9
How Well Playgrounds Provided Ideals of Nature

How well of a job does your playground provide:	Most frequent answer
A diversity of colors, textures, and materials	Good (3)
Ways to experience the seasons, wind, light, sound	Good (3)
A diverse range of play activities	Excellent (4)
Opportunities for large muscle motor development	Excellent (4)
Opportunities for dramatic play	Excellent (4)
Opportunities for exploratory play	Excellent (4)
Opportunities for self education	Excellent (4)
Places that allow for socialization	Excellent (4)
Places that allow for some level of privacy	Excellent (4)
Ways for children to modify the playground with their imagination	Excellent (4)
Ways for children to modify the playground for real	Excellent (4)
Opportunities to interact with nature	Excellent (4)
Natural places that are sheltered and have shade	Excellent (4)
An interesting play environment all year	Excellent (4)
An environment that is better for children than a traditional play environment	Excellent (4)

The Playground as an Environment

Participants were asked various questions about the playground environment to understand how they were viewing it based off of how they saw children using it. The questions were split into two sections, character of the naturalized playground and content of the naturalized playground.

Character of the Playground

The character of the playground section examines participants' thoughts on what makes the playground work. These questions concentrated more on how the participants felt the playground was being used as well as the good and bad things about it. Table 10 summarizes the responses to questions pertaining to the character of the playground.

Do you think that your playground is fun and interesting for children?

Participants were asked whether or not they thought their playground was fun and interesting for children. Participants answered with a positive response for thirteen of the fourteen sites indicating that they thought the playground was fun and interesting for children.

Top theme. The most frequently expressed theme for why participants thought their playground was fun and interesting was that it contained a large variety of play types that children could engage in as well as allowing for them to use their imaginations more. Some participants' responses included, "Whether it's building little forts or collecting leaves, playing in the sandbox or in the stream. Or even the kids who want to

Table 10
Interview Questions Summary – Character of the Playground

Question	Response
Do you think that your playground is fun and interesting for children?	<ul style="list-style-type: none"> • Yes <ul style="list-style-type: none"> ○ Variety of activities ○ Promotes pretend play ○ Allows children to find their own play and interests ○ Keeps children engaged ○ Children are always exploring and interacting with the natural world ○ Promotes learning, problem solving, and critical thinking
What are the positive aspects of your playground?	<ul style="list-style-type: none"> • Design of the playground • Variety of play opportunities • Connection to nature • Modifiable parts
What are the negative aspects of your playground?	<ul style="list-style-type: none"> • Nothing • Design issues • Maintenance
How do you think your playground compares to a traditional playground?	<ul style="list-style-type: none"> • Not comparable <ul style="list-style-type: none"> ○ Kept children more engaged/not bored ○ Promotes more pretend play ○ It's always changing ○ Promoted education and learning ○ Has less conflicts ○ In general, better ○ More relaxing calming ○ More opportunities for different types of play ○ Got children to slow down and observe the world
Does your playground provide a connection to nature? If so, how? If not, why?	<ul style="list-style-type: none"> • Yes <ul style="list-style-type: none"> ○ Interacting with nature on a daily basis ○ Experiencing various natural cycles ○ There is an educational connection between the class and nature such as the playground now brings in new animals ○ Contains a variety of spaces and locations
Do you see the playground as an educational extension of the classroom? If so, how? If not, why?	<ul style="list-style-type: none"> • Yes <ul style="list-style-type: none"> ○ Many different types of learning can happen, both on purpose and not • How learning happens <ul style="list-style-type: none"> ○ Interaction ○ Bringing the classroom outside, or the playground inside ○ The interesting environment promotes exploration and questions ○ There are special connections that can occur

be on the swings or play soccer” (site I), and “Our children are always going on some ‘grand adventure’ as they call it” (site B).

Common themes. The common themes identified that showed that the playground was fun and interesting were that children were:

- Creating their own play or finding their own interest on the playground:

Over the years I’ve seen children use it in many different ways depending on their personalities and what we have out there. (site E)

- Always engaged and not bored on the playground
- Always exploring and interacting with the natural world
- Engaging in educational learning, problem solving, and critical thinking:

I have seen kids pull out all of the rocks in the rain garden path to let the water flow so they can follow the water flow all the way down... and they want to learn how the water flows so they pull them out and make this little path. (site D)

What are the positive aspects of your playground? Participants were asked what they thought were the positive things about their playground, i.e., the things they liked.

Top theme. The most commonly cited positive aspect was some form of design about the playground. Design was discussed in various ways with 4 ideas being commonly cited: layout, size, variety of spaces, and topography.

Common themes. The common themes that were identified as positive aspects of the playground were that the playground:

- Provided opportunities for different types of play and interests
- Provided a real and interesting connection to nature such as watching the natural life cycle of plants or being able to interact with natural elements
- Contained modifiable parts such as sand and water that can promote of a variety of play activities

- Promoted exploration and education:

...most of our kids are town or city kids...so watching them discover those things and get to learn and do things that don't normally get to on their own at home. That is the best aspect of the playground. (site B)

- Promoted better attitudes such as the children being more relaxed and less conflicts occurring:

I think that the natural element is just calming, just the way the playground is set up with so much nature involved, I think it's just a very calming environment. (site F)

What are the negative aspects of your playground? Participants were questioned about what they thought were the negative aspects of their playground. This included ideas or elements that they either did not like or did not think worked well.

Top theme. The top cited theme was “nothing,” as in the participant did not think that there were any negative aspects to the playground. In addition to this, even when giving examples of things that they thought were negative many stated that these were not really negative things, just challenges that they had to overcome for example,

“(That’s) the only thing I could really think of, I don’t even really want to say negative, it’s more challenging than negative” (site F).

Common themes. Common themes that were identified were issues that related to:

- The layout of the playground, such as the placement of elements or the location of paths
- Maintenance, such as natural elements requiring more work to maintain:

We said that there is more upkeep and care than a traditional playground on a more continual basis. For example, mowing and weeding. (site K)

How do you think your playground compares to a traditional playground?

Participants were asked how they thought their playground compared to a more traditional playground, i.e., one that contained mostly manufactured equipment, promoted physical exercise, was mostly made of steel and plastic, contained large hard surfaces, usually had an open grass space, was flat, and contained very little vegetation. The general idea expressed was that the naturalized playground was a better play environment than a traditional one.

Top themes. The most cited themes for how their playground compared to a traditional playground were:

- It promoted more imaginative play than a traditional playground
- Children were more engaged in their play:

One of the biggest things that we didn't notice right away, but after reflection on the teachers end, ... we don't get 'I'm bored and I don't know what to do'. (site I)

Common themes. Common themes for how their playground compared to a traditional playground were that it:

- Promoted more open-ended play:

I think if a child walks out on to a traditional playground and they see a swing set and a slide, they are not going to go over and grab a handful of leaves and go make something with the leaves, make a pot of stew on a cold day. They are going to go over and fight over the swing and fight over the slide. That's what they are going to be interested in because that's what they see and that's where they are directed. (site K)

- Was a dynamic and changing environment due to the natural elements:

The playground is never the same from day to day. The fox that was out on the playground yesterday isn't there today, but there are birds out there today. (site B)

- Was more educational:

Which leads their discovering and learning.... I think that kids are able to do more self learning and exploring on a natural playground. (site E)

- Has less conflicts

- Has a more relaxing and calming feel to it because of the natural elements:

There's a lot of bright colors sends off to the children a different stimulation as well vs. just the natural calming colors of nature. It helps

kids ground down, and brings the anxiety level down for them and therefore they can really discover themselves and their surroundings because they are not being interfered with this sensation that they cant even identify with but they are reacting to. (site H)

- Had more variety of play types available
- Got kids to slow down, observe, and explore their world at their pace:

Where a natural playground like we have, it encompasses all the content areas, and it's an opportunity for us to have the kids kind of slow down and learn about nature and their environment and to appreciate it and understand what's going on in the world around them vs. the intense play, play, play. (site F)

Does your playground provide a connection to nature? If so, how. If not, why? Participants were asked whether or not they thought that their playground provided a connection between children and nature. They were then asked to explain how it was either providing that connection or not. Thirteen out of the fourteen participants cited positive responses meaning that they thought their playground did provide a connection to nature. Comments included, for example, “Absolutely, yeah” (site D), and “Oh my gosh, yes, it does. It certainly provides a connection to nature” (site I). One of the fourteen participants cited a neutral to negative response with the reason being that the playground was fairly new (six months). The participant stated, “I think we are getting there. I think initially no, because we were not quite sure how to get them to interact with it” (site C).

Top themes. The most cited themes for how the playground provided a connection to nature were:

- By children interacting with natural elements (i.e., touching flowers, seeing birds drawn in by trees, mixing sand and water, feeling textures of rocks and wood):

But our flower gardens, and herb and vegetable gardens are great connections cause we let them go in there and pick the flowers. And in the fall when the vegetables are ready we go in and pick the vegetables. (site B)

- Through the various life cycles of nature that occur on the playground, such as seeing a plant go from a seed to a full-grown plant and then back to seeds again:

We catch insects and we watch them, we observe them. If we ever find dead ones, we mount them and put them in our children's museum. Well, this year we found a dead mouse and that was really exciting, maybe a hawk dropped it by. So we put it in a jar and we observed it, watched it decompose. (site L)

Common themes. The common theme expressed was that the playground provided an educational connection between the classroom and nature by providing real elements to see and interact with.

Do you see the playground as an educational extension of the classroom?

Participants were asked whether or not they thought of their playground as a place where education could happen. Thirteen out of the 14 participants cited positive responses meaning that they did think of their playground as an educational extension of the

classroom. One participant did not view the playground as an educational place because it was not set up to be “educational,” for example it did not have informational signs.

Top theme. The main theme expressed for why participants saw their playground as an educational extension was that it was full of different ways it can be used for education, both intentionally and unintentionally. Many of the participants made references to the various educational opportunities that occur during play such as reading seed packets, charting the growth of plants, researching a new bug someone found, or understanding the physics of why this stick stays in the sand but this one doesn’t. Along with educational learning, emotional skills were also discussed:

They learn emotional regulation skills ... something feels too overwhelming to you, like the big super hero play, you should find a different place to play. Maybe the herb garden, maybe you would like to pick some flowers, maybe you want to go swing. (site L)

Educational comments from participants included, “The learning doesn’t stop” (site N), and “Science is all around them and they get to live it, breath it, and experience it” (site A).

Common themes. Common themes identified for how participants saw their playground as an educational extension were:

- Through interaction with different plants and animals:

Kids are definitely hands on learners and they can move around, they are not restricted to the classroom and ... touch things. So I think there is a lot that our playground can offer to bring the classroom out there. (site E)

- By bringing the classroom outside to the playground or bringing something inside from the playground to extend learning:

We also bring out storybooks. One of my favorites is ‘Pumpkin Jack’ and it’s about this pumpkin and it starts out in October and works its way back through. It goes through the whole life cycle of this pumpkin, so we actually use that book throughout the entire year along with these pumpkins. They get to see that whole thing takes place, we photograph it, we chart it, we see how many seeds we got sprouts from, and we get to watch their pumpkin vine grow and they get to pick the pumpkin again and take it in the classroom and starts the cycle again. (site F)

- By creating an interesting play environment that promotes questions from children:

There’s a lot more to see, to do, to be involved in, and the idea that the children learn how to investigate and they learn how to use their curiosity. That promotes them wanting to learn more about it and I think that makes the environment better for that type of thing. (site K)

- By providing special animal connections to the natural world:

Last year we had a mallard pair come to our pond and nest. We thought it was fantastic. We roped it off and tried to make it so the children were aware of the animals and they were nesting there. (site I)

Content of the Playground

The content section examined participants’ thoughts on the various elements that

make up the playground. Table 11 summarizes the responses to questions pertaining to the content of the playground.

What is the most popular element in your playground and why do you think that it is? Participants were asked which of the elements in the playground they thought were the most popular and why. Many participants explained that they could not pick just one element because the children used all of the elements, but eventually did state what they thought of as the most popular. Participants cited the elements of water, hills,

Table 11
Interview Questions Summary – Content of the Playground

Question	Response
What is the most popular element in your playground and why do you think it is?	<ul style="list-style-type: none"> • Water, sand, hills <ul style="list-style-type: none"> ○ Promoted open-ended play ○ Novelty
What is the least popular element in your playground and why do you think it is?	<ul style="list-style-type: none"> • Nothing • Various elements • Incorrectly designed
What elements would you recommend to others and why?	<ul style="list-style-type: none"> • Hills, sand, water, climbing <ul style="list-style-type: none"> ○ Allows for multiple different uses ○ Provided a unique or novel experience
What would you add to your playground and why?	<ul style="list-style-type: none"> • More natural elements <ul style="list-style-type: none"> ○ To make the playground more natural ○ To fill in for a missing activity
What would you like to remove or change in your playground and why?	<ul style="list-style-type: none"> • Manufactured equipment, nothing <ul style="list-style-type: none"> ○ It did not fit in with other elements ○ It did not get much use
Does it matter that the vegetation in the playground will take years to fully develop?	<ul style="list-style-type: none"> • No <ul style="list-style-type: none"> ○ Kids were having fun on day one ○ Participants planned for it ○ Participants understood that it takes time for everything to grow ○ Provides many educational experiences as it matures ○ It will just get better and better ○ Does not matter because it will be the same framework, only slightly different ○ Participants are excited about the potential of the playground
Is the playground interesting all year?	<ul style="list-style-type: none"> • Yes <ul style="list-style-type: none"> ○ Positive <ul style="list-style-type: none"> ▪ Each season provides different, unique experiences ○ Negative ○ Natural weather can make some elements completely useless

and sand more than any other element. Other elements were only cited by one or two participants, as shown in Table 12.

After stating what they thought were the popular elements, participants were then asked to explain why they thought that element was popular.

Top theme. The top cited theme for why an element was popular was because it provided open-ended play opportunities. This meant that the element provided a wide variety of play uses and ways to interact with it. Each child could interact with this element in his or her own way and make the play their own. For example, “The water is just intriguing because it’s water. It’s just fascinating. You can float things, you can dam it up, you can do all sorts of variations with it” (site D).

Common themes. The other common theme expressed for why an element was popular was that it was a novelty to the children. It was something they probably do not interact with on a daily basis in their own homes such as a big hill or a tree that they can climb.

Table 12

Participant Responses of Most Popular Element

Most popular element	%	Most popular element	%
Water	42.8	Garden	7.1
Sand	42.8	Stepping stones	7.1
Hills	42.8	Mud bog	7.1
Rocks	14.3	Dry river bed	7.1
Trees	14.3	Snow	7.1
Dirt pile	7.1	Tree house	7.1
Everything	7.1		

What is the least popular element in your playground and why do you think that is? Participants were asked which of the elements in their playground were the least popular and why they thought so. The response of “nothing” was cited most often as they thought children used every element on the playground. This was cited by seven of the fourth participants, which represented 50% of the sites. Some participants responded that a specific element could be considered the least popular. Actual cited elements varied from playground to playground with no common themes expressed. The results for this question are listed in Table 13.

Top theme. The top cited theme for why an element was least popular was that it was incorrectly designed. Participants stated that an element could be too big for children to use, such as a stage, or that the element itself was incorrectly sized for the age of the children, such as handholds being too far apart.

Common themes. No common themes emerged from the participants’ discussion.

Table 13
Participant Responses of Least Popular Element

Least popular element	Responses (%)	Least popular element	Responses (%)
Nothing	50	Open field	7.1
Stage/amphitheater	14.3	Stump climb	7.1
Climbing structure	14.3	Instruments	7.1
Snow	7.1	Trees	7.1
Logs	7.1	Dirt dig	7.1
Labyrinth	7.1	Train structure	7.1

What elements would you recommend to others and why? Participants were asked which elements they thought worked well and would recommend to someone building a new playground and why. Participants' answers were varied with nineteen different elements being cited. Hills, sand, and water were the most commonly cited. The list of elements recommended is listed in Table 14.

Top theme. The top cited theme for why an element was recommended was that it could be used in a multitude of ways, such as stating, "I think things like that, open-ended things, are good to add in to a playground" (site G).

Common themes. The common theme noted was that the element provided an experience for children that another element could not recreate. One participant's response was, "Getting dizzy, and being at a different height and getting a different perspective... For us that hill is only two feet, but that's big to some of them and that's like standing on Mt. Everest for them" (site G).

Table 14
Most Recommended Element

Recommended element	Responses % (N)	Recommended element	Responses % (N)
Hills	35.7 (5)	Stages	7.1 (1)
Sand	28.5 (4)	COB structure	7.1 (1)
Water	28.5 (4)	General topography	7.1 (1)
Climbing structure	21.4 (3)	Gardens	7.1 (1)
Rocks	14.2 (2)	Sticks	7.1 (1)
Variety of spaces	14.2 (2)	Log stumps	7.1 (1)
Moveable parts	14.2 (2)	Spaces	7.1 (1)
Natural elements	7.1 (1)	Mud bog	7.1 (1)
Trees	7.1 (1)	Edible items	7.1 (1)
Playhouses	7.1 (1)		

What would you like to add to your playground and why? Participants were asked what would they like to add to their playground and why. Participants' answers were varied with fourteen different elements being cited. Gardens and climbing structures were the most commonly cited elements with the others being cited by one or two participants. The elements that they would add to their playground are shown in Table 15.

Top theme. The top cited theme for why an element was to be added was to make the playground more natural such as adding gardens or using natural rock for edging to separate areas instead of plastic or steel. For example, "I think I would love to have it be a natural style element. From raised platforms from woods with shade ..." (site C).

Common themes. The common theme was that the element would fill in for a missing activity such as climbing.

Table 15
Element Participants Want to Add to Their Playground

Element to add	Responses (%)	Element to add	Responses (%)
Gardens (butterfly, herb)	21.4	Orchard	7.1
Natural climbing structure	14.2	Tougher plants	7.1
More grass	7.1	More shade	7.1
More trees	7.1	Sound and movement items	7.1
Rocks	7.1	Educational items	7.1
Natural play spaces	7.1	Mud area	7.1
Pond	7.1	A bridge	7.1

What would you like to remove/changed in your playground and why?

Participants were asked what would they like to see removed or changed on their playground and why. The most common answer was “nothing.” Two participants cited specifically “manufactured equipment,” while many others cited various types of manufactured equipment. The specific elements that they would have removed from their playground or changed are listed in Table 16.

When the specific elements mentioned by the participants are grouped into manufactured and natural elements, they represent 77.7% and 22.3% respectively, of actual cited elements.

Top theme. The top cited theme for why participants wanted elements removed or changed was “nothing.” Many participants were happy with their playground the way it was, stating, “I wouldn’t take anything out, it’s great the way it is” (site D).

Common themes. Common themes that were expressed for why they would remove or change an element was that it:

Table 16
Element Participants Wanted Removed or Changed

Element	Responses (%)	Element	Responses (%)
Nothing	42.8	Brick structures	7.1
Manufactured equipment (actual response)	14.2	Manufactured climbing structure	7.1
Plastic storage box	7.1	Change paths	7.1
Merry-go-round	7.1	Grasses	7.1
Plastic elements	7.1	Woodchips	7.1

- Did not fit in with the natural feel of the other elements in the playground:

The plastic structures and replace them with something that's more natural. (site B)

- Was not used very much because of its limited play opportunities:

I would rather see a climbing structure that was more natural like a cave or something like that. It doesn't seem like it allows the children to be free... vs. a train which is a train. (site N)

Does it matter that the vegetation in the playground will take years to fully develop? Since a naturalized playground typically contains more vegetation than a traditional playground, and vegetation takes time to mature, participants were asked what they thought about the time it would take for the vegetation to fill in and mature.

Thirteen out of the fourteen participants stated that it did not matter.

Top themes. The top themes for why participants thought that the issue of vegetation maturing did not matter were that:

- The participants had at some level planned for this, such as buying bigger trees or ones that mature faster
- Their kids had lots to do even though plants were not fully grown:

I felt from day one it offered more than what we had before in terms of activities and interests. We still have the bikes and wagon from before that they do love. But from day one it's been terrific. (site G)

Common themes. Common themes that were identified as reasons why it did not matter that the vegetation needed time to mature were:

- An understanding that nature takes time to grow and mature, they did not expect it to be fully-grown overnight
- That watching how it grows and matures provides learning experiences and makes the playground interesting
- That the changes will just make it better and give it more character
- That it still provided all the basic play opportunities just in slightly different environments:

I don't think so because the children that are playing on it now are still getting the imaginative play and the stimulation and motor skills developed as much as the kids in ten years are going to have it. It's just going to be a different learning environment for them and it's going to encourage them to imagine and learn and grow in different ways. (site B)

- That there is a lot of potential and they are excited to see it grow:

I like the beginning process so we can see the potential that it has, but I am also excited in ten years to see what it looks like when the trees are grown and the bushes are filled and how the kids will play with it then. (site B)

Is the playground interesting all year? Naturalized playgrounds tend to contain more vegetation and less of the manufactured equipment as compared to a traditional playground. They also promote open-ended play as opposed to more directed play. Because of this, participants were asked if they thought their playground was interesting all year round, even in winter when trees have lost their leaves, many of the plants are

bare, and snow might cover the ground. Almost all of the participants cited positive responses meaning that they thought their playground was interesting all year round. Two of the sites cited neutral to negative responses with reasons being: (1) it was possible for the entire playground to be covered in 6' of snow which made it unusable; and (2) the amount of time children can play outside is regulated by laws and the temperature, meaning, in very cold weather, they might only have ten minutes to play.

Even though a majority of the responses were positive, participants expressed both good and bad things about their playground as the seasons changed. This led to two themes being expressed: a positive one and a negative one.

Top theme. The positive theme for why the playground was interesting all year was that each season provided different and unique opportunities due to it being more natural. A great example comes from a participant who spoke about a water drainpipe designed to let water flow downhill through a series of logs:

Right now (winter) you go out there and there is water leaking through, but the whole thing is caked with ice. In the fall there was no water at all or very little.

In the spring you should see how fast the water flows. With all the spring run off from the snow melting, so then it's like holy cow. (site D)

The use of natural elements allows for different uses of those elements. For example, hills that were for running are now for sledding or you can look for animal tracks in the snow.

Common themes. The common theme that was identified was that the natural weather could make some elements completely useless such as water pumps for streams or sand freezing. Participants saw this as a negative of the playground.

Activities and Use of Elements on the Playground

Activities

The activities section looked at how the playground was being utilized by children through the eyes of the participants. Table 17 summarizes participants thoughts on the different ways children played as well as what elements they played on the most.

What activities do you see occurring on the playground and what elements do you see them taking place on? Participants were asked what activities they saw boys, girls, and everyone participating in, and what elements they were playing with.

Top theme. The major theme expressed in this question was that the playground was really a playground for everyone. Many participants expressed the idea that the elements on the playground were used equally by both genders but for different play types and activities. One response was, “We don’t have a playground that is this is more

Table 17

Interview Questions Summary – Activities and Use of Elements on the Playground

Question	Responses
What activities do you see on the playground?	<ul style="list-style-type: none"> • Everyone <ul style="list-style-type: none"> ○ Pretty much everyone plays on everything ○ Everyone can enjoy it in their own way ○ Functional and dramatic play were the most popular • Boys <ul style="list-style-type: none"> ○ Mostly functional and dramatic play ○ Play was more physical • Girls <ul style="list-style-type: none"> ○ Mostly dramatic, constructive, and non-play ○ Play was more subdued and calm as compared to boys • Top played on elements <ul style="list-style-type: none"> ○ Trees, sand, rocks, hills, water

where the girls are.... They play on it differently everyday” (site N).

The top five perceived activities for everyone were some form of physical play (running, jumping, climbing), pretend play, constructive play (sand), observing others, and digging in sand or dirt. The percents of play types are shown in Table 18.

The theme of both genders enjoying the playground in their own way was repeated when comparing the number of different activities cited and how many times each were cited. Boys had 20 activities cited a total of 28 times, girls had 20 activities cited 23 times, but activities that were done by everyone represented 25 activities and were cited a total of 91 times.

Boys. More active types of play characterized how boys play. Many of their activities involved running or being more physical. Boys were also perceived to engage in mostly dramatic and functional play through responses such as, “Boys are often more of the rough play ... their role-playing is far more visibly dramatic and imaginative play is more consistent” (site H).

Table 18
Play Type Frequency

Play type	# of instances	%
Functional	30	33
Dramatic	19	21
Constructive	15	16.5
Non play	15	16.5
Game with rules	12	13

Girls. Play activities of girls were characterized as being less physically aggressive such as creating a restaurant to bake things (as opposed to creating and destroying a city) or swinging. Girls' most perceived popular forms of play were different types of dramatic play as well as non-play such as reading or observing others. Comments included, "The girls also do role-playing, it's a little bit softer, it's not as visually dramatic and movement is quieter, but they also do imaginative play as well" (site H).

Use of Elements

When participants were talking about activities they saw children doing, they were also asked what element of the playground it was taking place on. Additionally, what types of play occurred was inferred from the participants answer. Table 19 shows what activities were noted for each element.

Out of the thirty-one elements cited, participants noted twenty-five being used by everyone, five specifically by girls, and one specifically by boys. In addition, participants' responses also show that elements can promote specific types of play as well as different amounts of activities. Sand promoted many different types of play, such as building a city, and lots of activities. A shopping cart, on the other hand, showed only one type of play and only one activity. The top five elements that had the most activities associated with them were as follows: trees, sand, rocks, hills, and water features. These results are shown in Table 20.

Table 19
Playground Elements and Associated Activities

Element	Activities cited	Element	Activities cited
Whole playground	Looking for bugs, finding animals, helping others, running, tag, restaurant, hide and seek, obstacle course, pretend games, play animals, physical, super heroes, races	Loose parts	Role playing, jumping into piles of leaves
Amphitheater	Talking	Open space	Racing, sports, observing, running
Bamboo	Making paths, running	Pathways	Drawing, riding trikes, riding bikes, races, running
Benches	Reading	Rocks	Balancing, climbing, hide'n seek, "home base," hopscotch, paint rocks, pretend play, running, jumping, rolling, looking for bugs
Bikes	Riding, racing, obstacle course	Sand	Baking, building a city, bulldozing, creating, digging, cooking, exploring, making cakes, pirates, making streams and rivers
Bridges	Pretend games	Shopping carts	Shopping
Shrubs	Pretend games	Slides	Going down the slide
Caves	Cops and robbers, pirates, pretend games	Snow	Shoveling, spraying snow with colored water, snowballs, building forts, making pathways
Climbing structures	Climbing	Stage	Dress up, planning other activities
Dirt	Cooking, mud pies, digging	Structures	Cooking, making mud pies, observing, princess parties, house
Dry river bed	Balancing, creating, pretending, learning	Swings	Observing, swinging
Enclosed space	Pretend play, imaginative play, parts of other play	Trees	Climbing, cooking, experimenting, exploring, hanging out, hide'n seek, running, tag, observing, house, castles, hideouts, shops, homes, building houses
Garden	Digging, exploring, gardening, growing plants, weeding	Vegetation	Watering
Grasses	Hayrides, many different uses, reading	Wagons	Collecting, rides
Hills	Adventures, balancing, race hula hoops, roll down, run down, sledding, throwing balls, observing	Water feature	Creating paths, cooking, experimenting, various interactions, building cities, creating, making streams, digging
Logs	Tag, forest, pretend		

Table 20
Playground Elements and Associated User and Play Types^a

Element	User	Type of play	Element	User	Type of play
Whole playground	E	Non-play, games with rules, dramatic, functional	Loose parts	E	Dramatic, functional
Amphitheater	E	Non-play	Open space	E	Non-play, games with rules, functional
Bamboo	E	Functional	Pathways	E	Non-play, games with rules, functional
Benches	G	Non-play	Rocks	E	Non-play, games with rules, dramatic, functional
Bikes	E	Games with rules, functional	Sand	E	Non-play, constructive, dramatic, functional
Bridges	E	Dramatic	Shopping carts	G	Dramatic
Shrubs	E	Dramatic	Slides	E	Functional
Caves	B	Dramatic	Snow	E	Non-play, constructive, dramatic, functional
Climbing structures	E	Functional	Stage	G	Non-play, dramatic
Dirt	E	Dramatic, functional	Structures	G	Non-play, dramatic
Dry river bed	E	Non-play, constructive, dramatic, functional	Swings	E	Non-play, functional
Enclosed space	E	Non-play, functional	Trees	E	Non-play, games with rules, dramatic, functional
Garden	E	Non-play, functional	Vegetation	G	Non-play
Grasses	E	Non-play, games with rules, dramatic, functional	Wagons	E	Non-play
Hills	E	Non-play, games with rules, dramatic, functional	Water feature	E	Non-play, games with rules, dramatic, functional
Logs	E	Games with rules, dramatic			

^aE refers to everyone, B refers to boys, G refers to girls

CHAPTER V

DISCUSSION

The Inventory, Ideals, and Background

Naturalized play environments attempt to create an environment that is highly stimulating and interesting to children while providing a connection to the natural world (Moore & Wong, 1997). These playgrounds are gaining recognition as viable options for play and are beginning to be built with great variety across the United States and internationally. However, many studies have focused on the quantitative data of how these environments are affecting children's development with only a few studies exploring the perceptions of these play environments (see Brown & Burger, 1984; Herrington, 2008; Moore et al., 2005; Ozdemir & Yilmaz, 2008). These few studies have examined naturalized playgrounds from different perspectives but have not addressed other questions that pertain to naturalized playgrounds, such the perception of these play environments from an adult's viewpoint.

Therefore, to address the need to better understand naturalized playgrounds from different perspectives, this study investigated how adult participants at facilities that promote education perceived naturalized playgrounds and had three objectives: (1) to understand the general make-up of naturalized playgrounds and background information about the participants; (2) to examine how participants view the playground as an environment; and (3) to see the perception of how the playground is used by children.

The results of this study will help determine if these types of playgrounds are viewed as being viable options for a playground and if they are actually providing any

connection to nature. This information will allow designers to understand how naturalized playgrounds are viewed, which will allow them to create better, and more immersive naturalized playgrounds.

The Inventory

The first objective of this study was to better understand the type of elements that form a naturalized playground. As expected, natural elements made up a majority of the play environments studied, with augmentation by a few manufactured elements and loose parts. It has been suggested that this type of set up, with manufactured equipment supplementing a natural environment, is a good way to design naturalized play environments because it helps to increase the diversity and interest of the playground (Frost & Strickland, 1985; Moore, 1986b). More recent studies, though, have shown that a completely natural environment can provide a diverse play environment that allows for all types of play including functional, dramatic, and constructional (Fjortoft, 2004; Fjortoft & Sageie, 2000; Samborski, 2010), and that manufactured elements should be used only when there is no natural option available. This study adds to those findings, showing that participants want their playgrounds to be as natural as possible. Survey respondents wanted to remove the manufactured equipment, which suggests that they would not want manufactured equipment even if it provided something different.

The current study found that the elements contained within naturalized playgrounds compared favorably to White's determination of what basic elements should be in a naturalized playground (White, 2004). These basic elements were vegetation, animals, sand, structures that can be modified, places for children to explore, etc. All of

the playgrounds in this study contained a combination of these characteristics in various degrees, e.g., all of the sites had access to water and sand, and thirteen of the sites contained a large variety of vegetation. Participants, for the most part, thought that their playground did a great job at providing ideals of nature, such as ways to experience the seasons. This suggests that there is some agreement across designers as to what should be in a naturalized playground and what experiences it should provide.

Since naturalized playgrounds are built with many different elements and try to provide the ideals of nature, it makes defining or labeling them difficult. A “naturalized” playground, as defined by the participants, would be man-made, contain manufactured elements, and would not allow for complete exploration of the environment. This is different than a “natural” playground that would be free of manmade equipment, contain working ecosystems, and allow for complete exploration of the environment. These definitions are somewhat different than the studies’ initial definitions with the main discrepancy being that participants saw “natural” playgrounds as being completely natural; they were not designed by anyone.

The results of this study suggest that most of the playgrounds in the study lie somewhere in-between the extremes of naturalized and natural with many containing manmade equipment but also having ecosystems and allowing for some exploration. Additionally, none of them would be considered “natural” because they were all designed to be a playground. This can make it difficult to have discussions about these playgrounds as participants, design companies, and researchers use multiple terms to describe them, and each have their own ideas on what those terms mean.

Moving past definitions, naturalized playgrounds, at the basic level, are trying to mimic a more natural environment. What sets them apart from other playgrounds is the exploration of that environment; the vegetation is not there for aesthetic purposes, it's to be interacted with. Letting children explore the environment is something that was discussed frequently by participants, such as when a participant spoke about how at they knew the playground was there to be explored but were reluctant to let the children mess it up:

And I think in a lot of ways the playground is setup for kids to fully explore, but then we also don't want them to fully explore because don't want them to mess up bushes or get into the bark chips and make them go into the sand. (site J)

Through exploration and interaction a connection between children and nature, which is an important part of these playgrounds, can occur, but, only when there is "nature" available for exploration.

The terms "natural" or "naturalized," may not accurately describe these playgrounds or distinguish them from playgrounds that just have plants added for aesthetic value. Since interaction with nature and a willingness to allow for exploration are important, combining terms appears to create a more descriptive mental picture, such as "interactive natural playscapes." A more descriptive label might allow people unfamiliar with these types of playgrounds to better understand that these playgrounds are trying to not only create a fun, interesting, and educational play environment, but also to provide a connection to nature by recreating a more natural environment.

Participants' Knowledge

Participants who use naturalized playgrounds are actively learning about them and continuing their education. Almost all of the participants had either read articles or attended a conference where naturalized playgrounds were discussed. This is important for a playground that is much more versatile in what it can offer children beyond the physical activity of play. The more that teachers, program administrators, or other adults charged with providing play experience know about the playground, the better they can utilize everything it offers.

Being able to utilize the playground effectively means finding better ways to engage children on the playground. When teachers engage children in play, the children can benefit greatly by creating more complex and productive play, but the teachers have to be willing to interact with them (Davies, 1995). Participants in this study considered their roles on the playground to be a facilitator of play. They did not think of their role as being one who controls play, but as one who helps guide play by answering questions, bringing attention to a butterfly, or creating world where the trees are a scary forest and letting the children come up with play from there. Interacting and helping children play may be important in a playground that offers more open-ended play because the playground is not directing them to specific activities. Without teachers helping them, children might not be able to take advantage of everything the playground has to offer. Teachers being educated about the playground, as well as using that education to interact with the children during play will help create a richer environment for the children.

Playground as an Environment Discussion Themes

The second objective of this study was to gain more insight into naturalized playgrounds as an environment by investigating perceptions about them based on how children were using them. Using the top themes from the environment questions, seven discussion themes emerged. After examining the themes, it was noted that there was a flow to the themes. For example, using a natural element such as sand leads to children creating their own play. That gets them more engaged in play, which then increases their interest in the play.

Creating the Playground

The basic layout of the playground was important for many of the participants as they saw it as being essential for making the playground fun and interesting. In addition, the layout was also seen as being both a positive and negative aspect of the playground. The most important aspects for the layout of the playground were attention to topography and the creation of spaces. This is important because proper design of the playground, such as the inclusion of desirable elements, is critical in creating a fun and interesting place.

Topography. Thirteen of the fourteen sites had some sort of natural topography built into them either as a hill or a riverbed; it was not simply a flat space. Participants thought that having topography was positive because it allowed the children to change their perspective of the playground and that allows for more options of creative play. However, a giant hill was not needed; the height of the topography needed to be

appropriate to the size of the children as even a small hill only a couple of feet tall was a mountain for 5 year olds and provided a great lookout:

Getting dizzy, and being at a different height and getting a different perspective of the world around them. For us that hill is only two feet, but that's big to some of them and that's like standing on Mt. Everest for them. It must be exciting.

They love [the hills]. (site G)

Topography seems to be an important part of creating a playground that mimics the natural world as well as providing a starting point for creative play. A flat space with play structures may not be as interesting as a rolling playground that has many different places to visit. This is one way that sets these playgrounds apart from traditional playgrounds and seems to be a reason why naturalized playgrounds are perceived to be more interesting for children.

Spaces. The playground also needs to have smaller spaces that allow for more private play and larger spaces that allow for group interaction. Different sizes of spaces give children more options to choose how they want to play. For example, a child wants to be alone for bit and not play with everyone else. If the whole playground is open then there are no smaller places for them, and they may not enjoy the playground. Having a variety of spaces may allow that child to find his or hers own place. A participant's thought on spaces, "It creates many small areas for the children to go off into vs. whole group. Everyone doesn't have to share a climber or swing set, with this environment they can spread out" (site F).

Successful Play Elements

Elements are the core of the playground and represent the content of the playground; the things that children can engage with in play. Participants' responses showed that the most popular or highly recommended elements were those that promoted creative play by providing a combination of unique and multiple play types. Examples of these sorts of elements include hills, sand, and water. The unpopular elements were ones that were perceived to have very few play options or did not afford much for creative play, such as a manufactured train structure. Having elements that offer a variety of ways to interact with it encourages creative play that then affects many other aspects of the playground such as it being fun or keeping the children engaged in what they are doing.

Not Being Bored

Participants mentioned that having elements that have multiple ways to interact with them allows for children to play with a deep level of interest. The perception was that a naturalized playground kept children more engaged and interested in their play because they could play the way they wanted and really make play their own. This was typically caused by elements supporting multiple play options where children can interact with the element the way they want as well as not being limited to one type of play. This had an effect of the children not being bored, which then affected other behaviors as noted by a perceived reduction in conflicts on the playground. This was most prominently expressed when participants were asked about how their playground compares to a traditional playground. The perception was that a child who creates play, as opposed to being dictated how to play, is more connected to that play and stays

engaged in it longer. For example, a child might find some leaves on the ground and create a whole world around those leaves as opposed to seeing a swing and swinging:

I think if a child walks out on to a traditional playground and they see a swing set and a slide, they are not going to go over and grab a handful of leaves and go make something with the leaves, make a pot of stew on a cold day. They are going to go over and fight over the swing and fight over the slide. (site K)

Participants thought that the various play options of the playground allowed children find their own way to play. If a child wanted to be alone they could find a quiet place or if they wanted to be physical and run there was a place for that. A child being engaged and not bored is an important achievement for a naturalized playground because it shows that it is a viable replacement for a traditional playground. It is successfully doing its job as a playground and keeping children busy playing.

Things Need to Be Natural

Participants believed that a playground built around natural elements should be as natural as possible. They wanted their playground to be as natural as possible because, not only did it fit in better with the idea of what a naturalized playground should be, it also promoted other beneficial affects such as education, a dynamic and changing environment, a connection to nature, or a more relaxing atmosphere. Most playgrounds in this study contained two-thirds natural elements and one-third manufactured elements. When participants were asked what they would remove, change, or add to the playground, the participants responded with remove something manufactured and add in more natural things. For example, “If we were to put wooden structures in there, they

would blend in with the playground better...” (site B), or “I would rather see a climbing structure that was more natural like a cave or something like that” (site N).

Participants seemed to see some benefit in the natural elements and preferred those to manufactured ones. This desire for the removal of manufactured elements in favor of more natural elements is countered by a few studies which have shown that manufactured equipment can be beneficial due to it providing a unique experience that cannot be recreated with natural elements (Frost & Strickland, 1985; Moore, 1986b). This is true to a point (you probably cannot recreate a normal swing with natural elements) but instead of a normal chain swing, a wooden “porch” swing could be used. It still offers the sensation of swinging with the added social benefit of swinging with a friend. This can be taken even further by planting flowers and vines next to it so they grow on it and soon it becomes a special place instead of just a swing.

The use of vegetation and the creation of more natural areas also had the perceived benefit of the playground having a calming or relaxing feel about it. Some participants had children lie down on a grass hill and look at clouds while others thought that children were calmer because the playground contained more neutral colors instead of bright plastics. This perception coincides with the idea that natural environments can positively effect the behaviors of children, as was shown in a study done in 2001 showing that children with attention deficit disorder were more focused after walking through “green” or more natural areas (Taylor et al., 2001).

Participants also felt that the heavy use of natural elements gave it a more natural, park-like feel, which promoted them to encourage behaviors typically occurring in a more natural environment, such as exploring. This coincides with Tranter and Malone’s

study (2003), which showed that if the playground was promoted as a place for loud physical play then that is what occurred, but if it was promoted as a place of play and learning, then that is how children saw it.

Since a naturalized playground is inherently created with lots of vegetation, there is the issue that it needs time to fill in and mature. This is in contrast to a traditional playground that relies on installing pieces of equipment; so, when the concrete dries, the playground is ready. Because of this, naturalized playgrounds may not be considered as an immediate option. However, most of the participants stated that this was a non-issue because the basic framework of the playground was there and children were having fun on day one, even with all the new vegetation. Vegetation was only one part of the playground and other elements, such as the sand, water, or hills, did not need to grow and were available right away.

When looking specifically at the issue of vegetation, participants cited two ideas that made waiting for it to mature a non-issue. First, the participants had planned for it by choosing vegetation that was either more mature or matured more quickly whenever possible. The second was that there was an understanding by the participants that the playground would take time to mature. The participants knew that it would not be fully grown on day one and this led to excitement about the possibility of the playground changing over time and providing different experiences.

Having the playground be as natural as possible was important to the participants and factored into many other parts of how the environment worked. The participants saw benefits of natural elements and wanted the playground to contain less of the manufactured ones. One of the perceived benefits, that children were more relaxed and

calmer, is something that seems to be over-looked when people talk about playgrounds, but should be a part of the discussion. Additionally, just because a naturalized playground could take more time to fill in does not mean that it is not fun from the beginning.

Connecting to Nature

One of the philosophies behind naturalized playgrounds is that since they are built out of natural elements, they should be bridging a gap between children and nature. Various studies have shown that the complex natural environment can provide a stimulating play experience that makes it fun and interesting (Frost, 1992; Fjortoft & Sageie, 2000; Herrington & Studtmann, 1998; Moore & Wong, 1997). When asked about this idea, it was found that participants do believe that their playgrounds can provide a meaningful connection to nature. Most participants not only thought there was a connection to nature but also saw the whole idea of nature in the playground as a positive aspect and something that children were benefiting from.

Exploration was seen as a major component of providing a connection to nature. The use of natural elements helped to create an environment where exploration was encouraged. As children explore the playground, they interact with it, their natural curiosity comes out, and they ask questions. Answering these questions and teaching children about the world was something that participants enjoyed about the playground:

I have noticed more birds out there than I have ever seen, you see jays and robins in the spring. I never remember seeing them before, but there weren't any trees for them at the old playground. They weren't going there. So, I have noticed that

kind of transformation about it. And the kids said they saw a beaver, but who knows. (site D)

Participants cited two major ways that the connection to nature occurred: direct daily interaction and teacher interaction. Direct daily interaction refers to the idea that children are interacting with nature on a daily basis just through their everyday play. They get to feel texture differences between elements, watch animals, and mix elements such as sand and water. They also see various natural cycles such as seasons or plants growing and decaying in a garden. Teacher interaction refers to the previous idea that the environment promotes questions that then can become teachable moments. It also encompasses the idea that they can use the natural environment as place to directly teach children, such as having the children plant a certain type of plant to learn about it. Once again, this is not teachers telling children how to play, but instead bringing their attention to something occurring on the playground that might be time sensitive, such as bird stopping in at a birdbath.

The connection to nature seems to be all around the children as they learn about the changing of seasons or the natural life cycles of plants and animals. The connection to nature does not seem to be forced and occurs in every day normal play. Teachers stepping in and helping children understand or notice something that is occurring can further enhance this connection. Most importantly, it seems that having this connection is beneficial and is one of the most positive aspects of the playground.

Education

Education, both during play and non-play, was an important idea discussed by the

participants. Participants cited many learning opportunities available to children when using the playground, such as problem solving skills, asking questions, and critical thinking opportunities. These types of activities could be even more educational if reinforced and explained, which many of the participants spoke about doing. This was widely viewed as a positive aspect of the playgrounds. In fact, education was one of the main reasons why participants thought that their playground was a better environment compared to a traditional playground. They also thought it was an aspect that made the playground fun. Critical thinking and problem solving skills were specific areas that participants spoke about when discussing education. For example, damming up a flow of water and figuring out how to make it go where you want it, or mixing water and sand in different proportions just to see what happens were ways that education happen during play.

Education was also discussed in the form of special connections to nature that might not occur in a traditional playground. For example, there might be a duck in the pond, butterflies in the garden you planted, or an unknown bug on a shrub. Those connections might lead to questions and learning. If the natural elements were not there, those connections and educational opportunities might not happen.

I know last spring they found a frog in the rain garden, and there were like eight kids standing around it. I had to protect the frog, which is interesting because I know there wasn't a frog on our other playground. It didn't exist. (site D)

Participants also saw the playground as an educational extension of the classroom. This idea was expressed going both ways, from taking something from the classroom to the playground and vice versa. One example would be learning about leaves in the

classroom then going to the playground and picking up different leaves to discuss as one participant talked about:

All those cognitive and academic skills can be learned on the playground.

Reading when we are planting seeds and looking at directions, and we are reading books about what can grow. We are writing in journals about what's growing and how its growing or keeping the charts, looking at math skills, we're keeping charts about what's growing well, what's not growing well. How do we make this grow better? (site L)

A study done in the United Kingdom showed that schools with naturalized playgrounds seldom made any educational use of them and just used them as playgrounds (Maynard & Waters, 2007). In relation to this idea, many of the participants in this study did have some background on naturalized playgrounds and did understand that it can offer much more to children than just play. They are attempting to take advantage of that; however, how much they are actually doing and to what capacity are unknown.

Education was an important aspect of the naturalized playground that set it apart from traditional playgrounds in many participants' eyes. They enjoyed the idea that children were out there learning on their own while playing and were happy to expand on those learning opportunities. Naturalized playgrounds do more than provide a place for play; they provide an educational environment where play can occur.

Open-Ended Play

The participants repeatedly mentioned open-ended creative play in their responses. Open-ended play refers to the idea that children choose how they want to play

with the equipment as opposed to the equipment telling them how they should play with it. The presence of elements that have many uses allows for this to occur. As the playground changed over time and different opportunities appeared for children, open-ended play was still the main idea for play. Based on how often this was mentioned in relation to various questions, it could be considered the most positive aspect of the playground. The current study concurs with other studies that have shown that more natural areas tend to promote more dramatic, fantasy, and constructive play and less functional play, which is beneficial because children are doing more than just exercising (Fjortoft, 2001; Frost & Sunderlin, 1985). Here is a participant's thought on creative play in the playground:

I think it provides an environment that allows the children to use their imagination in a way that a traditional one can't because a traditional one tends to dictate how you should play. And I think ours being more naturalized and park like gives kids a chance to use their imagination. (site E)

Open-ended play could have an affect on children's attitudes as well. Participants thought that because children can find their own thing to do, whether that is playing with others, being alone, being physical, or being creative, it meant that children were not fighting to all do the same thing. Elements that allow more than one way of interaction allows a child to engage with an element as they like, which gets them more interested in it. This was also noted in participants' responses as a major difference between a traditional playground and a naturalized one. This perception of a reduction in conflicts in more natural areas was also seen by Moore in his study on children and biotic versus abiotic environments (Moore, 1986b). For example, one participant's thought, "The

conflicts on our playground have lessened, almost a hundred percent” (site I). A different participant’s view on conflicts on the playground:

I used to see that before, when the kids start getting a little older. They’ve been here for a while and they get bored, and you start to see a lot more challenging behaviors because kids are now play fighting and hitting each other and I do not see that as much. (site J)

This idea of finding your own way to play also was connected to emotional feelings as children could find play that matched what they wanted. If a child felt too overwhelmed by physical play he or she could go find a quiet spot and be comfortable instead. A playground that promotes unstructured, creative play can provide a way that children can learn social skills and manage emotions (Garvey, 1990; Hildebrand, 1994) as well as build self-esteem through a sense of accomplishment (Davies, 1995; Hildebrand, 1994; McCune & Zanes, 2001). These characteristics were found in the naturalized playgrounds, for example:

I think they feel, when they are digging in the sand, they get a sense of accomplishment when they dig a big hole. “Wow, look how far this goes up on me now, it’s up to my knees!” They’re amazed when they dig down and reach a different color of dirt than it was before. (site E)

Participants spoke about how the playground offers a multitude of different ways children can interact and play with the environment without focusing on one type of play, such as functional. Natural environments have been said to be good at providing a stimulating experience that then promotes a large range of play behaviors. Naturalized playgrounds hope to mimic that by design (Fjortoft & Sageie, 2000; Frost, 1992;

Herrington & Studtmann, 1998; Moore & Wong, 1997). A participant talking about the playground being interesting all year:

There is so much to learn about and it's always changing. It's really endless and changing, ever changing. By the season and also by the year. Our playground is totally different in September than it is in January and it's totally different in May than it was in February. The structure is all the same, but it's so different that the way the weather interacts with the playground, and the vegetation grows, and the children get the hang of it. (site L)

Natural elements helped to promote open-ended play opportunities by creating interest all year for children as trees change colors or plants grow. This changes what could be a very static environment into a much more dynamic one, which helps to create different experiences and opportunities that keep children interested. A participant's view about the playgrounds, "So we have four different seasons and it's like giving them four different playgrounds" (site N).

Elements with multiple uses, a connection to nature, or opportunities for education come together to create a playground that allows children to interact with it the way they want. Natural playgrounds offering a variety of play opportunities and children using their imaginations to create their own play were the most discussed themes. Children are not stuck with one type of play, but can find a type of play that suits their feelings. Participants believe that elements that make up the playground help to create an open-ended play environment that is interesting, connected to nature, educational, and most notably, fun.

Activities and Use of Elements on the Playground

The third objective of this study was to understand more about how children were using the playground by examining participants' observations on how children are playing. Three main ideas were investigated; do boys and girls use the playground differently, what types of play are occurring compared to a more traditional playground, and what elements are children playing on.

Boys and Girls

It was very clear that these naturalized playgrounds were built for everyone. Participants thought that both boys and girls could enjoy the playground, which is not to say that they interacted with the playground in the same way. In fact many participants noted that there were differences in the ways each gender played. Boys' play was more physical, aggressive, and loud with girls' play being calmer, slower, more thought out, and dramatic. While both genders had different ways to play, they both engaged in the same type of play. A hill for a boy is a mountain that he, as a super hero, flies to the top and sees where he needs to go next and runs off. A hill for a girl might be a spot where she, as a cat, might crawl to the top and catch some sun. Both are engaging in dramatic play, but the environment allows them to do it in their own way. For a playground that is built around the idea of using natural elements that promote creating your own play, this is what should be happening.

The effect of picking natural elements, such as sand and hills that have multiple uses, means those elements can be played with however the children want. The playground should not tell the children how they ought to be playing; it should give them

a complex environment that provides the tools and options to create play. The fact that participants do see children using the environment in their own way suggests that the open-ended nature of the playground is coming through. Because the playground does not depend on one type of play, but instead provides many different avenues to enjoy from functional to dramatic play as well as exploration and learning, it makes the playground a more enjoyable place for children.

Types of Play

The second part of examining how children used the playground looked at the types of activities children were engaging in. The data collected for this part of the study ended up not being detailed enough to provide a true statistical comparison to other studies, but some general trends emerged. For example, the percent of play types results do mimic those of a study done by Campbell and Frost (1985), which compared a traditional playground to a playground that was designed to focus more on creative play. Part of their study showed that play in a creative playground was more distributed across all play types as compared to the traditional playground where approximately 90% of play was a combination of functional and non-play. The results for this study show that participants' perceptions followed that same general trend of having play that is more distributed across all play types and not solely concentrated on functional play. Participants reported that children are taking advantage of the fact that the playground promotes many different ways to use the playground with activities occurring in all play types. This should be the case as the playground is designed out of elements that do not have specific functions and can be used in many ways.

Elements Affecting Play Types

The final part examined how the different elements in a playground can affect the types of play. Participants described some elements as having more perceived uses than others. Those multi-use elements promoted different types of play. The key finding was that individual elements promote certain play types over others. Any playground can easily be designed to be full of functional play by putting in elements that cater to that. A naturalized playground attempts to create a wide variety of play options by using natural elements that do not have defined uses and instead offer more open-ended play. This creates a wide set of acceptable ways to use them that then promotes many different types of play. This helps the playground become more enjoyable to everyone because the children can interact with the playground how they want to and play how they want to.

Conclusion

The conclusions from this study are that: (1) while there seems to be a general agreement among designers as to what constitutes a naturalized playground, there is no consistent definition of the term among adults charged with implementation and administration of naturalized play areas; (2) teachers and supervisors at facilities that have naturalized playgrounds are actively educating themselves about their playground and understand the how it can benefit in creating play for children; (3) naturalized playgrounds do not focus on one type of play and instead promote open-ended play that allows children to interact with it in their own way; (4) participants see the use of natural elements creating a viable playground option that goes beyond being just a place to play.

Naturalized playgrounds created by six different designers share many similar characteristics. This study shows that these playgrounds do contain mostly natural elements with few manufactured ones. The use of manufactured equipment in the playground was something that the participants did not enjoy as they soon felt that the natural elements were better and wanted the playground to be as natural as possible. Additionally, a key idea about naturalized playgrounds that helped to define them was that children were encouraged to explore the natural elements. Participants thought their playground was best described by the term “naturalized,” which may cause problems in discussions due to designers giving them different names. Having a single term, such as “interactive natural playgrounds,” to denote these playgrounds would help to bring these various resources together.

Naturalized playgrounds are different than a traditional playground and can offer more than just a place to play. Participants in this study recognized this and showed that they were actively educating themselves. By reading articles and attending conferences about naturalized playgrounds, they increase their knowledge of what the playground environment can offer. Access to information about naturalized playgrounds seems to be available in the form of conferences as well as general and more academic articles found in a variety of publications.

Naturalized playgrounds allow the children to play the way they want. By using elements that have multiple uses or no real defined use, a playground can be created that focuses on getting the children to come up with their own play. This allows the children to find the type of play that they want whether it is functional, dramatic, or solitary. It also allows them to be more engaged in their play because they create it. The naturalized

playground also lets both boys and girls enjoy the playground because the elements do not dictate a certain way to play.

Natural elements help to create a stimulating and interesting environment that is not only more dynamic than a traditional playground but goes beyond the usual idea of a playground being just a place for play. This also led to naturalized playgrounds connecting children to nature by simply being the environment they are playing in and by providing natural ecosystems that allow various types of interactions to occur. Those interactions with nature also allow the playground to be seen as a place of education as well as an extension of the classroom. Naturalized playgrounds go beyond being a place for just physical play and provide an environment that allows for developmental processes, connecting to nature, being social, and learning from the world around them.

Future Research

Some limitations, such as finding usable sites and participants, will become less of an issue as more naturalized playgrounds are built and a larger sample population is created. Others, such as the use of open-ended questions, allow for future areas to be investigated. Additionally, because the study was focused on specific parameters (e.g., interviewing a specific type of participant, at a specific type of facility, with a narrow range of ages for children) it makes the case for investigating different variables of those parameters.

This study used a loose interview packet with a semi-structured process to gain insight into how people viewed their playgrounds based off of how the children were using it. A more robust observational study of how the children were actually using the

playground could provide a wealth of information. Examining what elements they play on, what type play behaviors they show, and how they play with others would help to provide more insight into these playgrounds. This observational data could be then compared to a traditional playground to see how children use each environment as well as comparing it to perceptions of how people think children used it.

As noted previously, it is important to understand topics from many different perspectives. In this study only supervisors and teachers were used. Maintenance personnel, administrators, parents, contractors who put playgrounds in, and playground designers would all make interesting points about naturalized playgrounds.

Lastly, this study focused on children with an average age of 5 years. At this age the predominance of symbolic and constructive play is beginning to shift towards play involving games with rules as children get older and cognitive abilities increase. How do naturalized playgrounds built for preschools compare to those built for middle schools? It would be interesting to see if naturalized playgrounds are used in older age groups, such as those in elementary and middle schools, and to what capacity. Do they still serve a purpose as children get older? Investigating this idea, and the others mentioned, would help to increase our understanding about naturalized playgrounds and how they can be made better.

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APPENDICES

Appendix A. Naturalized Playground Element
Checklist (Interview Packet)

Background Information (Quick Answer)

- 1) What are the ages of children you supervise?
- 2) About how much time do the children spend in the playground per day?
- 3) How old is the natural designed playground?
- 4) What is your previous exposure to naturalized playgrounds (books, articles, etc)?
- 5) How do you see your role during outside time: as a facilitator or a supervisor?
- 6) Which do you think better describes your playground: Naturalized or Natural? Why?

Please think about the elements that make up your playground. We will go over this list at the beginning of the interview. You are not required to do anything to this list, but you may want to fill it out. It is provided to you so we can quickly go through it, so please be aware of the answers you will want to give.

Water

- | | |
|------------------------|--------------------------|
| Stream - working | <input type="checkbox"/> |
| Dry riverbed | <input type="checkbox"/> |
| Pond | <input type="checkbox"/> |
| Other water activities | |
-

Grasses

- | | |
|-------------------------------|--------------------------|
| Different varieties and sizes | <input type="checkbox"/> |
| Useable open grass space | <input type="checkbox"/> |
| Other | |
-

Trees

- | | |
|------------------|--------------------------|
| Single trees | <input type="checkbox"/> |
| Small ornamental | <input type="checkbox"/> |
| Large shade | <input type="checkbox"/> |
| Trees in groves | <input type="checkbox"/> |
| Other | |
-

Sand area	<input type="checkbox"/>
-----------	--------------------------

Landscape forms (hills, mounds, etc)	<input type="checkbox"/>
--------------------------------------	--------------------------

Vegetation

Flowers	<input type="checkbox"/>
Shrubs	<input type="checkbox"/>
Other _____	
<hr/>	
Interactive garden (kids plant)	<input type="checkbox"/>
Mulch	<input type="checkbox"/>
Rocks for climbing	
Small (about 1' high)	<input type="checkbox"/>
Large (higher than 1')	<input type="checkbox"/>
Logs	<input type="checkbox"/>
Places to interact with animals (birdfeeders)	<input type="checkbox"/>
Weather	
Weather station	<input type="checkbox"/>
Sundial	<input type="checkbox"/>
Wind-gauge	<input type="checkbox"/>
Rain-gauge	<input type="checkbox"/>
Structures built from natural elements (hedge maze, caves...)	
Such as: _____	
Other natural elements not noted:	

Manufactured Elements

Swings	<input type="checkbox"/>
Multi-level structure	<input type="checkbox"/>
Slide	<input type="checkbox"/>
Climbing structures	<input type="checkbox"/>

Zip-line

Interactive panels (tic tac toe, spin maze)

Concrete areas

Outdoor equipment (trikes, balls, sand molds)

Such as: _____

Bridge

Other manufactured equipment not mentioned (please state):

Naturalized playgrounds are more than just a group of natural elements; they also blend several ideals of the outdoors into the playground. In your opinion, how well do you feel that your playground is providing these ideals? Poor meaning that the playground is not providing this ideal at all. Excellent meaning that the playground is a showcase for this ideal. Once again, use this for reference for the interview.

How well does this playground provide:		Poor	Fair	Good	Excellent
1	a diversity of colors, textures, and materials	1	2	3	4
2	ways to experience the seasons, wind, light, sounds.	1	2	3	4
3	a diverse range of play activities	1	2	3	4
4	opportunities for large muscle motor development	1	2	3	4
5	opportunities for dramatic play	1	2	3	4
6	opportunities for exploratory play	1	2	3	4
7	opportunities for self education	1	2	3	4
8	places for socialization	1	2	3	4
9	places that afford privacy	1	2	3	4
10	ways for children to modify the playground with their imagination	1	2	3	4
11	ways for children to modify the playground for real (sandbox, garden)	1	2	3	4

12	opportunities to interact with nature	1	2	3	4
13	natural places that are sheltered and have shade	1	2	3	4
14	an interesting play environment all year	1	2	3	4
15	an environment that is better for children than a traditional play environment	1	2	3	4

These are the detail questions you will be asked in the interview. These questions are to be more open-ended and have you provide as much detail as you can. Try to think about what you are seeing on the playground and give as many detailed examples as you can. There are no right or wrong answers to these questions. They are simply your perceptions of what the question is asking you.

Character of the Playground (Detail)

- 7) Do you think your is playground fun and interesting for children? If so, how? If not, why?
- 8) Tell me about the positive aspects about your playground.
- 9) Tell me about the negative aspects about your playground.
- 10) In your opinion how do you think your playground compares to a traditional playground?
- 11) Does your playground provide a connection to nature? If so, how? If not, why?
- 12) Do you see the playground as an educational extension of the normal classroom? If so, how? If not, why

Content of the Playground (Detail)

- 13) Based on your observations what is the most popular natural element in the playground and why do you think it is?
- 14) Based on your observations what is the least popular natural element in the playground and why do you think it is?
- 15) What natural elements in your playground would you recommend to others and why?
- 16) What is one thing you would add to your playground? Why?
- 17) What is one thing you would subtract from your playground? Why?

18) What are your opinions on the idea that it will take time for the playground to mature?

19) Is your playground interesting all year?

Use (Detail)

20) How do children play on the playground environment?

Boys?

Girls?

Everyone?

End of questions and checklist.

Appendix B. Site Inventory Data

Table 21
Natural Element Inventory For Sites A and B

	Site A	Site B
Working stream	YES	YES
Dry river bed	NO	YES
Pond	YES	NO
Other water activates	Waterslide build into rocks	Water tables
Difference sized and varieties of grasses	YES	YES
Useable open grass space	YES	YES
Other		Ornamental grasses
Single trees	YES	YES
Small ornamental	NO	NO
Large shade	YES	YES
Trees in groves	YES	No
Other		Groves of trees just beyond fence
Sand area	YES	YES
Landscape forms	YES	YES
Flowers	YES	YES
Shrubs	YES	YES
Other		Grapevines on fences
Interactive garden	YES	YES
Type	Vegetable	Flower, herb, and vegetables
Woodchips	YES	NO
Small rocks	YES	YES
Large rocks	YES	YES
Logs	YES	YES
Places to interact with animals	YES	YES
Weather		
Weather station	NO	NO
Sundial	YES	NO
Wind-gauge	NO	NO
Rain-gauge		
Other		
Other natural elements	Caves, hideouts in shrubs	Large sticks for building

Table 22
Natural Element Inventory For Sites C and D

	Site C	Site D
Working stream	NO	NO
Dry river bed	YES	NO
Pond	NO	NO
Other water activates	Sensory table	Drain that water flows out of into rocks, wet area, and through logs
Difference sized and varieties of grasses	YES	NO
Useable open grass space	YES	YES
Other	Accessible big field next to playground	
Single trees	YES	YES
Small ornamental	YES	YES
Large shade	YES	NO
Trees in groves	YES	NO
Other		Large trees next to property
Sand area	YES	YES
Landscape forms	YES	YES
Flowers	YES	YES
Shrubs	YES	YES
Other	Climbing vines	
Interactive garden	NO	YES
Type	Concrete plans to introduce	Five raised garden beds, rain garden
Woodchips	YES	NO
Small rocks	YES	YES
Large rocks	NO	NO
Logs	YES	YES
Places to interact with animals	YES	YES
Weather	NO	NO
Weather station	NO	NO
Sundial	NO	NO
Wind-gauge	NO	NO
Rain-gauge		
Other	Wood pole forest	

Table 23
Natural Element Inventory For Sites E and F

	Site E	Site F
Working stream	NO	NO
Dry river bed	NO	NO
Pond	NO	NO
Other water activates	Water feature with shallow ponds with designs and runs into sand area, water tables	Push button activated water feature - creates a stream down rocks on hill into sand area.
Difference sized and varieties of grasses	YES	YES
Useable open grass space	YES	YES
Other		
Single trees	YES	YES
Small ornamental	YES	YES
Large shade	YES	YES
Trees in groves	YES	YES
Other	Pine trees in a group	Crabapples in a group
Sand area	YES	YES
Landscape forms	YES	YES
Flowers	YES	YES
Shrubs	YES	YES
Other	Lystaria	
Interactive garden	YES	YES
Type	Boxes that kids can put flowers in. Each class has their own garden spot beyond that.	Annual, perennials, large planter boxes with herbs and vegetable
Woodchips	YES	YES
Small rocks	NO	NO
Large rocks	NO	NO
Logs	YES	YES
Places to interact with animals	YES	YES
Type	Birdfeeders, other places like gardens	Seven bird feeders, rabbits. Bring in farm animals for a day.
Weather station	NO	NO
Sundial	NO	NO
Wind-gauge	NO	NO
Rain-gauge	NO	YES
Other	Solar thermometer	Wind socks
Other natural elements	Sand toys, trike's, pedal walkers, dramatic play props, snow shoes and sleds	Storage closet, hula hoops, scooters, trikes, sand toys, large waffle blocks to build, aisle, dramatic play props

Table 24
Natural Element Inventory For Sites G and H

	Site G	Site H
Working stream	NO	NO
Dry river bed	YES	NO
Pond	NO	NO
Other water activates	Stone mountain, push button operated goes into sand area, water tables.	Water pump with a hand crank goes into bucket, then poured down a carved rock into sand
Difference sized and varieties of grasses	YES	NO
Useable open grass space	YES	NO
Other		Potted oriental grass, parks
Single trees	YES	NO
Small ornamental	YES	NO
Large shade	YES	NO
Trees in groves	YES	NO
Other	Pines, oaks, maples, trees making a tunnel over a path	Trees here are oriental shade bamboo, fairly tall
Sand area	YES	YES
Landscape forms	YES	YES
Flowers	YES	NO
Shrubs	YES	YES
Other	Flowering trees	Shrubs are oriental shade bamboo, somewhat tall, lots of large leaf plants in wine barrels that break up the playground
Interactive garden	YES	YES
Type	Bulbs, vegetables, flowers, beds for each class	Herbs in hanging pots on fence that looks toward street
Woodchips	YES	NO
Small rocks	YES	YES
Large rocks	YES	NO
Logs	YES	YES
Places to interact with animals	YES	NO
Type	Birdfeeder, bird bath	
Weather station	NO	NO
Sundial	NO	NO
Wind-gauge	NO	NO
Rain-gauge	YES	NO
Other	Thermometer, rain barrel	
Other natural elements	Trees to form a tunnel, stone path - side of book and in pattern	COB structure of lizard, tree with climbing holds, everything is rock, wood, or cob

Table 25
Natural Element Inventory For Sites I and J

	Site I	Site J
Working stream	YES	YES
Dry river bed	YES	NO
Pond	YES	NO
Other water activates	Stream is an actual stream, large underground tank, pumps water and makes a stream, full plant variety and ponds	Water pump thing with bucket, mosaic water sensory table
Difference sized and varieties of grasses	YES	YES
Useable open grass space	YES	YES
Other		
Single trees	YES	YES
Small ornamental	NO	YES
Large shade	YES	NO
Trees in groves	YES	YES
Other		
Sand area	YES	YES
Landscape forms	YES	YES
Flowers	YES	YES
Shrubs	YES	YES
Other	Willows	Grapes over arbor that children can ride bike through
Interactive garden	YES	YES
Type	Pollinator garden - native shrubs, flowers, grasses	Beds, children choose, herbs or vegetables
Woodchips	YES	YES
Small rocks	YES	YES
Large rocks	YES	YES
Logs	YES	YES
Places to interact with animals	YES	NO
Type	Bluebird, butterfly, bat, house	
Weather station	YES	NO
Sundial	NO	NO
Wind-gauge	YES	NO
Rain-gauge	YES	NO
Other	Snow gauge	
Other natural elements	Climbing wall built into hill, cave with grass mound. Willow tunnel, stump climb, birds nest - dug out area filled with wood chips and wood stumps.	Cave, kids call it bear cave, rockwall, COB house, arbor

Table 26
Natural Element Inventory For Sites K and L

	Site K	Site L
Working stream	NO	NO
Dry river bed	YES	NO
Pond	NO	NO
Other water activates	Hose, sprinklers	Use water pump to create a stream in sand, catching barrels and shoots, children can move water around.
Difference sized and varieties of grasses	YES	YES
Useable open grass space	YES	YES
Other		Ferns, tall grasses
Single trees	YES	YES
Small ornamental	NO	YES
Large shade	YES	YES
Trees in groves	NO	YES
Other		Bamboo
Sand area	YES	YES
Landscape forms	YES	YES
Flowers	YES	YES
Shrubs	NO	YES
Other		Grape and flowering vines
Interactive garden	YES	YES
Type	Classes choose, fruits and vegetables	Vegetable and herb
Woodchips	NO	YES
Small rocks	YES	YES
Large rocks	YES	YES
Logs	NO	YES
Places to interact with animals	YES	YES
Type		Birdfeeders
Weather station		
Sundial	NO	NO
Wind-gauge	NO	NO
Rain-gauge	NO	NO
Other	NO	NO
Other natural elements	None	Tree forts and shelters, house, boats, mazes (children built), stepping stone paths

Table 27
Natural Element Inventory For Sites M and N

	Site M	Site N
Working stream	NO	NO
Dry river bed	NO	YES
Pond	NO	YES
Other water activates	Water table	Hose hook up, water tables, mud pit
Difference sized and varieties of grasses	YES	YES
Useable open grass space	YES	YES
Other		
Single trees	YES	YES
Small ornamental	YES	YES
Large shade	YES	YES
Trees in groves	YES	YES
Other		
Sand area	YES	YES
Landscape forms	YES	NO
Flowers	YES	YES
Shrubs	YES	YES
Other		Grape vines, blue berry Shrubs
Interactive garden	NO	YES
Type	Plans to build a garden	Herb, raised beds, rock garden, orchard
Woodchips	YES	YES
Small rocks	YES	YES
Large rocks	YES	NO
Logs	YES	YES
Places to interact with animals	NO	YES
Type		Birdfeeder, hang stuff out to bring them in
Weather station	NO	NO
Sundial	NO	YES
Wind-gauge	NO	NO
Rain-gauge	NO	YES
Other		Thermometer
Other natural elements	None	Path through grasses, grass crawl

Table 28
Manufactured Element Inventory For Sites A and B

	Site A	Site B
Swings	YES	NO
Multi-level structure	YES	NO
Slide	YES	YES
Climbing structures	YES	YES
Zip line	NO	NO
Interactive panels	YES	NO
Concrete areas	YES	YES
Outdoor equipment	YES	YES
Examples	Scooters, buckets, jump rope, hula hoops, scoops, snowshoes, bird feeders	Bikes, tricycles, balls, basketball hoop, sand toys, colanders, honey containers, pots, pans, plates, spoons, recycle things
Bridges	YES	YES
Other manufactured equipment	100' tower with levels, tables, art places, fort	Aisles, picnic tables, little tike houses, pavilions, gazebos, amphitheater, benches around trees

Table 29
Manufactured Element Inventory For Sites C and D

	Site C	Site D
Swings	NO	YES
Multi-level structure	NO	NO
Slide	NO	YES
Climbing structures	NO	YES
Zip line	NO	NO
Interactive panels	NO	NO
Concrete areas	YES	YES
Outdoor equipment	YES	YES
Examples	Trikes, ball, balance beams, shovels, basketball hoop, bean bags, hop scotch, tents, sensory tables, sand molds	Balls, soccer, basketball, kick, sand toys, sleds
Bridges	YES	NO
Other manufactured equipment	Brick hideouts	Slides built into hills, climbers built into hills, cargo net under tree house, picnic tables, geodesic climbing domes

Table 30
Manufactured Element Inventory For Sites E and F

	Site E	Site F
Swings	NO	YES
Multi-level structure	YES	NO
Slide	YES	YES
Climbing structures	YES	NO
Zip line	NO	NO
Interactive panels	NO	NO
Concrete areas	NO	NO
Outdoor equipment	YES	YES
Examples	Sand toys, trikes, pedal walkers, dramatic play props, snow shoes and sleds	Storage closet, hula hoops, scooters, trikes, sand toys, large waffle blocks to build, aisle, dramatic play props, water tables, old large wooden swing chair
Bridges	YES	NO
Other manufactured equipment	Rubber bike path, a stage, climbing wall, two play houses, benches, monkey bars	Stairs, bike path with asphalt, stage, play houses

Table 31
Manufactured Element Inventory For Sites G and H

	Site G	Site H
Swings	YES	NO
Multi-level structure	NO	NO
Slide	YES	NO
Climbing structures	YES	NO
Zip line	NO	NO
Interactive panels	NO	NO
Concrete areas	YES	YES
Outdoor equipment	YES	YES
Examples	Wagons, scooters, basketball hoops, rakes, shovels, bikes, cars, dinosaurs in sand, large wooden blocks, aisle's, balance beam, seesaw, dolls, workbench with tools, parachute, lacrosse sticks, magnifying glass table, sleds, sail boat (real in the sand), benches, arbor, play houses, tire swing	Trikes, balls, sandbox toys, puppets and dolls, musical instruments.
Bridges	NO	NO
Other manufactured equipment	Open air houses, house on path that allows you to walk through it, marimba, tub drum	Stage - wood, talking tube, rain wheel, marimba, small covered area to be a house, the roof covered in leaves.

Table 32
Manufactured Element Inventory For Sites I and J

	Site I	Site J
Swings	YES	NO
Multi-level structure	NO	NO
Slide	YES	YES
Climbing structures	NO	NO
Zip line	NO	NO
Interactive panels	NO	NO
Concrete areas	YES	YES
Outdoor equipment	YES	YES
Examples	Balls, sand toys, pogo sticks, basketball hoops, soccer goals, sleds,	Bikes, trikes, ball, sand toys
Bridges	YES	YES
Other manufactured equipment	Concrete area is just outside classrooms for art stuff, amphitheater with a cedar trellis, concrete is imprinted with tracks and plants, merry go round	Musical instruments, large wind chimes, drum, marimba

Table 33
Manufactured Element Inventory For Sites K and L

	Site K	Site L
Swings	NO	YES
Multi-level structure	NO	YES
Slide	NO	YES
Climbing structures	NO	YES
Zip line	NO	NO
Interactive panels	NO	NO
Concrete areas	NO	YES
Outdoor equipment	YES	YES
Examples	Bag set, tools for gardening	Trikes, multi person scooters, wagons, wheel barrows, shovels, spades, rakes, hoes, balls, dramatic play items, pots, brooms, blankets, trucks, cars
Bridges	YES	YES
Other manufactured equipment	Bridge is a garden bridge, plastic tube buried, benches, picnic tables, fenced in	Geodesic dome, green house, hexagonal decks as destinations, raised digging area, benches, compost bin

Table 34
Manufactured Element Inventory For Sites M and N

	Site M	Site N
Swings	YES	YES
Multi-level structure	YES	YES
Slide	YES	YES
Climbing structures	YES	YES
Zip line	YES	NO
Interactive panels	YES	NO
Concrete areas	YES	YES
Outdoor equipment	YES	YES
Examples	Balls, sand molds, manipulative table, hula hoops	Trikes, ball, sand, streamers, bowling, dramatic play clothes, ball dolls, mud kitchen, golf, garden tools
Bridges	NO	YES
Other manufactured equipment	Amphitheater, brick maze	Wooden strain, stage

Appendix C. Site Transcripts

Site A

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background questions

What are the ages of children you supervise?

6 to 8 years old.

About how much time do the children spend in the playground per day?

We spend about 2 hours to 6 hours out there a day.

How old is the natural designed playground?

7 years.

What was your previous exposure to naturalized playgrounds?

My background in working with children for the past twenty years in a variety of different settings. Having a child development and family counseling background, developing programs around recreation and outdoor play has been something that I have taken on over the years. But I do read a lot and I have gone to trainings. Through _____ University, through Ag in the classroom. They've actually offered like a gardening and outdoor environment training and this year I went. I read a lot. And then we have access to a conservancy group that I talk to a lot, so have done a lot of research. And I have learned about the plants, the environment, and the animals, and what organic growing means. Anyway, so I have done some education with talking to people as well as reading and seeking help through the USU extension agency has helped a lot and then trainings.

Do you consider your role as a facilitator or supervisor?

I facilitate. There are times when I actually teach kids how to play. We have a stream and they are allowed to get in the stream, because its very low and we are right there near them, as we get in it with them. So I do facilitate them playing, because they are still learning that its ok to get dirty and its ok to get in the water, its ok to dig in the sand or dirt and get buckets of water and make streams and ponds.

Inventory Notes

Water – We have a water slide that goes through the rocks. It's a man made with rocks. It goes into a children's swimming pool.

Grasses – what ever is natural to our environment is what we have and some planted.

Structures – We have a cave and in the summer when the grasses grow high and the bushes are dense then the kids usually end up making some sort of structure of a cave. Just in the summer when things are tall.

Other natural elements – We have petrified woods, really big pieces, they don't climb on it, but its part of the playground so they can look at it and talk about it. And then, the playground on side has a wall that is of rock, man-made, but there are crevices in those rocks and animals, birds, nest there all the time.

Bridges – We have a bridge that is suspended in air so they go across. And then we have one that goes across the pond.

Other Manufactured – We have tall towers that are made out of wood that are probably a hundred feet tall. That have multi-levels, including like a deck where we have tables and chairs where kids like to have activities, art projects. I would describe it as a fort, because it's really made to look like a fort back in Tom Sawyer days. They are super tall, and that where the suspended bridge comes in because it connects two of the large towers. So you go up one tower, run across the bridge, and down the other tower.

Ideals Notes

We actually filmed a movie here. We have a movie camp and we made an Indiana Jones spoof on our adventure trail. It was really fun.

Environment Questions

Positive aspects about the playground?

We have a variety of equipment and a unique area. We have paths to run through, trees, over bridges, around the pond. We have sand to dig in. We actually have a casting of a mammoth dinosaur that was found in Park City years ago and then they duplicated and they have it in our sand pit and its partially covered so the kids can bury and rebury it like they are doing a dinosaur dig. Within the cement pathways that wind around through the aspen trees and down into the play area, there are animal footprints with a plaque by each one. So like with a raccoon, there's a description of the raccoon, a picture, its paws, what their habitat is, what their species is. And then there are paw prints along the sidewalks so that the kids when they are playing they can learn about those animals. And those are scattered across, there are about ten different plaques through the playground. We have lots of birds that come and build nests, so it is filled with cheerful birds, busy and

chirping away. We have a stream that runs through rocks and there are strategically place boulders in the stream so the kids can hop from one to the next to get up the stream to the bridge. And they always think that they just discovered it, that they are the only ones that discovered they could do that. But its intentional, but it's all fitting in with nature, it looks natural. We have a climbing wall that is on one of the caves. We have a really large cave that's lit. It's a little dark to give it that cave feeling, but it's got a rock wall. The towers are really neat with the different levels, and the furniture that we have is all natural wood. The kids can move it around, from one level to the next. Everything is safe; we have heavy-duty netting that goes across the bridge, because the bridge is like twenty feet in the air. Safety has been really thought out.

Negative aspects about the playground?

We have two playgrounds, the one playground the ground is woodchips, and kids splinters in their feet, because they like to take their shoes off. We don't have a grassy area right there I wish we did though. We also don't have on one part of the playground where the woodchips are. We don't have large shade trees on that part of the playground. Where they run around. Because they are all down in the second playground, but if they are up in the top playground then there are not any shade trees on that playground. The other thing is that because we have so many trees, and we have lots of bird feeders to attract birds and so we also attract their predators, such as raccoons. We have had a couple of times where we have had a raccoon in one of our structures and then we have had to take the kids inside and call someone to get the raccoon out. We have these little black birds that like to nest and they are very territorial and so they will dive-bomb me when we are out there sometimes. They are in the middle of nesting in the trees. We have invited them. You got to have adults there watching the kids because of the water. The kids just cant go out there, they have to be with a supervisor. So that can be a negative, because kids just want to go run and play.

Is it fun and interesting?

Yes, We have caves, tall towers. It's every much like the scene from Tom Sawyer. We let them race sticks down the stream; we let them get in the water. We have things to climb on, things to swing on. We have all the elements.

Which better describes your playground: Naturalized or natural?

I guess naturalized, because the cave is not built out of the side of the mountain, it was built, made. But there is a natural grove of aspen trees. And the flowers are all natural, but I think it's naturalized more than natural. I don't know if anything can be totally natural though. You will always be bringing some things in. Unless it's plain old woods period and you say play in the woods.

How does your playground compare to a more traditional one?

The nontraditional part would be the caves, sand pits, pond, and stream. And then the second play area is the swings and play structure. The play structure is less used by the children. The adventure play sees most of the play. They swing on the swings, but really it's the adventure trail.

Is the playground interesting all year long?

We have a lot of snow right now, so the adventure trail is only accessed with snowshoes. We can still do towers. Basically it's just snowshoeing. The pond is empty and the playground is covered in snow. We build things more; snowmen, snow forts. In the summer we are not doing that. It's more playing in the water, running around.

In the winter is it still interesting?

No, I don't think so because we're talking about five or six feet of snow. Even the fence that is around the adventure area, the snow has gotten so deep it's got to the top of the fence, so we are actually snowshoeing over the top of the fence, that's how deep the snow is. It is interesting, but it's not. Summer is way more fun. It will literally be buried, the whole thing.

Does it matter that the playground needs time to mature?

That is a concern. With the background and area that we have, they spent more money and bought trees that were bigger and had immediate shade, but that costs a lot of money. So if you don't have the budget then that is a concern. Being able to plan and know what grows in your area. For example, aspen trees grow really fast here and they just take off and send out shoots. And then you've got little shoots all over the place and they grow pretty fast. If you want trees and if you want that natural look and feel for kids, then you are going to probably going to have to combine the two: money to bring in mature trees and well as other trees that are going to take time to grow.

Negative things about growing?

We do not have any maple trees so we haven't had to worry about the maples not growing, it takes ten years. Seriously, they spent a lot of money on trees because they wanted it to be ready for kids and wanted it to be as natural as possible. When they built this area they picked an area that had aspen trees already. So they picked this space based on the trees. They positioned the buildings and other areas around the trees as much as possible so that they already had existing trees. The problem is that you don't get instant shade unless you bring in large trees that are expensive and then you have to pamper them and baby them and spend a lot of money on water until they can establish their root system. It's expensive for sure.

Even if it takes ten years? Worth it?

Yes, you need to protect the trees against deer, at least we do. Porcupines as well. We protect them with black covers around the trunk.

What elements work well and why?

Having lots of trees is great. Yeah, the kids are really attracted to water. The stream is a big hit and they love to get in it. They can get in the stream part, but the pond is deeper and they can't always get in that part. They love to play in that. But like I said before supervision is key when they are in the water. But they are not allowed to swim in it.

What elements don't work well and why?

They pretty much play with everything. They play the least on the play structure. They use all the natural elements; they use everything. Sometimes because it's so natural though we have to remind them that they can't go off into the bushes, because they end up smashing down some of the flowers so that's a negative. The cement that they use for the pathways, I am not sure what the combination is, they tried to make it look natural, but I can see that with the weather, lots of snow and sun, it is wearing and there are cracks. There are hills. The earth shifting and moving has made the sidewalks more uneven, which every year they try to go fix those. That's a problem. On the adventure trail, under all the trees, they have woodchips. Well, that's great, it keeps down the weeds, but the other problem we have is because we have a lot of critters; squirrels, voles, rabbits that like to dig. They come early in the morning before any kids get there and they will dig and then they spread out everything on the sidewalk. So then we have to go, when it's time for the kids to go out, we have to go through and sweep everything, push it back down into the burrows that the animals make. They didn't put a barrier between the sidewalk and the natural part, which would stop some of that. Sometimes there is too much shade; it can be too shady. Especially in (inaudible) because we are high altitude so the temp is hot, we do get into the nineties, but sometimes it's a little bit too cool, like in May. Because the shade makes it a little bit colder and also makes the snow melt slower. For some reason they planted these thorny little mini rose bushes. They didn't realize kids would get that close to the bushes. There are two bushes that don't work for me. One is thorny. The other is a bush that has little red berries, they are not poisonous, but because kids are kids they always want to eat them. Even if they are not poisonous I just don't want them to eat them. I don't know if anyone is allergic to them. I really don't know why they put in those bushes.

What would you add to the playground and why?

I would actually like to take woodchips off the of the playground where the play structures are and put grass. I would like to add trees, more trees, by the playground area by the play structure. There isn't any shade by the play structure, where the play structure is it's away from all the trees so there isn't any shade. And then the woodchips, I would just like to have grass, because, you know the kids want to be barefoot and feel everything with their feet, hands, mouth. They want to run around barefoot, we have a rule you can't, but they still want to do it and woodchips are not comfortable even if they are playground certified.

What would you remove from the playground and why?

I would take out the play structure. But I would also replace it with something that looks a little bit more natural, that maybe has the color that is more neutral instead of a bright blue slide. I would like to move the location of the swing, but I know we can't do it. Being with the kids so much, being outside with them, and you see the natural flow of where they run and where they hide, where they jump, where they walk to get to different places on the playground and on the adventure trail. I have found that the placement of the swing set, they always want to walk through the swing set area, even if there is a lot of other ways they can get to the adventure trail for some reason, I don't know, it just a

natural thing, they just want to walk right where the swing set is. And so I would love to move that so it's not in the flow of traffic. A design issue, but you don't know that until you see kids actually playing and you don't know that until you see how people interact with a playground. I don't think the planners would know that people are going to go this way. There is also a pathway to the playground, but the kids don't use it, they want to jump over the big rocks to get to the playground and there is not a natural path there and so all of those flowers that were planted there are dead because the kids for some reason like this one spot to get to the playground. So they jump over the rocks and go by the swing set.

Do you think your playground promotes a connection to nature?

Yes, I do let the kids pick the flowers, they can't pick all of them, but they can pick one or two. Especially the little girls want to put them in their hair, so they are allowed. We have bird feeders so there are lots of birds around. They are not allowed to touch the birds and the birds aren't going to let them. But there are a lot of bird nests that are eye level. The birds seem to trust the kids, they build their nests low. The kids are allowed to get close to look in the nest, but not touch, but that's part of their education, they don't touch, they can look. When there is a bird nest that is abandoned, we have moved them so that the kids can take them apart and look at them. They are also allowed to go and pick up owl pellets. We have done that and we have dissected them.

You said you have an interactive garden

We planted plants, we didn't plant by seed because our growing season is so short, so I actually bought zucchini plants, because I wanted them to be able to watch the plant grow and have the flower and the vegetable. The kids helped mulch, because we have rabbits (pets) so we made our own mulch, they were able to water the garden, pick weeds, pick tomatoes from the garden. Its small enough of a garden and next to the playground it was basically part of their play.

What activities do you see on the playground?

They like to dig in the sand and they love water with dirt. Mud pies are a big hit and so are making their own streams and rivers in the sandbox and the sand box is pretty big. So there is a lot of digging. They just want water. They like to play tag, they love to play hide and seek because we have lots of areas to run. They love to run. So they run around the path and under the bridges and over the bridges and under the waterslide, around through the bushes and trees. Our playground caters more to free creativity play. More of the cowboy and Indians mentality. Its just so Tom Sawyer, its just right out of the book of Tom Sawyer. I mean, I don't know how else to explain it. That's what our playground is. It's not the typical swinging on swings, playing on a play structure, bouncing a ball. It's your Tom Sawyer, your out there finding sticks and building a fort, and your throwing rocks in the water, and your trying to hide from the bad guys in the bushes. Outdoor adventure kind of thinking. Because even if we bring the hula-hoops out, they will use them as bases for capture the flag. That what our kids do. If we have jump ropes, they will jump rope a little bit, I have tried to get them to do that but they don't want to, they want to play jump the river. It's a game where you use two jump

ropes and you create a river with them and they jump it (on the ground). And it's the simplest game ever.

Do they use the rocks?

They like to paint the rocks, so they will gather them up and bring them inside and paint them. We have a lot of big rocks and they like to use sidewalk chalk. They are allowed to draw on the sidewalks. In the wintertime, I give them spray bottles of non-toxic water based paint so they can go out and do snow sprays and paint in the snow.

Boys

They will make a sword out of anything. We have trees so branches break down and they always find them and they always make swords. They are allowed to do that they just can't whittle them until they are pointy. They use the cave all the time. One of the windows has slats so it looks like a jail, so it seems like it's always the boys that are the ones that trap the girls in the cave. We see a lot of pirate stuff. So we do pirate buried treasure because we have a lot of sand and dirt and they like to hide things. They like the adults to hide things and then they go find them. A couple of years ago we made a big plank and we had them walk the plank. We have a pool and we would make them walk the plank and jump into the swimming pool.

Girls

They like to cook and make mud pies. They had a restaurant. They use a lot of the tower levels because they have tables and chairs so that's their kitchen cooking area. So they took the dirt in buckets and took it to their kitchen, got water and made mud pies, got sticks for candles, made a birthday cake. Get grass and combine it. They also like to do princess parties. The same kind of thing like the pirates, where the princesses are trapped in the tower. We made a movie like Repunzel.

Do you see the playground as an educational extension of the classroom?

Yes, I do see it as an extension of the classroom. We do have caterpillars out there, those woollybears caterpillars and we have brought them inside. We've put them in little habitat. We've caught salamanders in the pond and made habitats to bring inside so the kids can watch them more closely. We catch salamanders too and then we talk about them and they learn about them. So our playground is definitely an extension of the classroom. I think it depends on the personality of the person. Not everyone wants the kids to try and catch a salamander either, even if I am personally afraid of snakes or salamanders. The kids are learning, some of it is intentional, but it is all made and presented in a fun way. Science is all around them and they get to live it, breath it, and experience it.

Anything else?

I think that every park, community, planning school, need to have parents with kids, they even need to have kids involved in the process of building the playground. You can't identify everything, just like with ours, I don't think they though people were going to want to go this way to get to the playground vs. this way where the sidewalk is. I think

input from the beginning stages; they need to have kids involved with the planning. Instead of having it being an adult thing. Adults saying, "I think this is what the children want in our community." Now a days it's a lot easier just because people are starting to realize the benefits of more trees and open spaces and the parks are so much more advanced in a lot of ways.

Site B

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

4 to 5.

About how much time do the children spend in the playground per day?

About 1 to 2 hours a day.

How old is the natural designed playground?

2 years.

What was your previous exposure to naturalized playgrounds?

I've read some books. There was a safety class that I went to on both naturalized and tradition and I also got to play on one as a child. That makes it more interesting too. I have not dug really deep into the differences, the studies just yet.

Do you consider your role as a facilitator or supervisor?

It's a little of both, because I help facilitate play of the kids, we bring things out that they can use in the natural environment and encourage them to explore them. Like magnifying glasses to check out bark. But there are also times when I just supervise and standing there as they figure out how things work on their own.

Which better describes your playground: Naturalized or natural?

That's a tricky question, because it's both. It is natural because we've got the trees and the hills and rocks and we don't have anything that's brought in that's really manufactured. But it's naturalized because it is still growing. We just put it in. Our trees are still young and still growing. The kids are still wearing ruts into the hills and paths into the grass. I think it's both.

More natural in ten years?

Yeah, I would push it towards that. To me if it was going to be a natural playground we would go out into the middle of _____ Park and maybe add a few things, like slides. But that would be natural, wouldn't change it any, it's exactly how nature made it. Here we constructed this playground, and it is still growing and nature is still trying to take over and make it into its own.

Inventory Notes

Different grasses from different countries and areas.
We use a lot of recycled stuff for loose parts.

Ideals Notes

Nothing to add.

Environment Questions**Is it fun and interesting?**

Yes it is. It allows them to play in different ways that a traditional playground does not. It encourages imagination. Our children are always going on some "grand adventure" as they call it. They will be bringing us buckets of rocks and telling us that it's something different or they will be building little houses off in one of the corners and we will ask them what they are doing and they will tell us they are camping or something. There is always something new to explore, just in the spring they kept bringing us frogs. Then they go out and try to find more and we ask them where did you find them and what kind of hole was it in. And get them to ask all sorts of questions and get them thinking.

Positive aspects about the playground?

One of the positive things is it does get the kids thinking and moving and instead of saying after ten minutes "I wanna go inside." We usually have to really encourage them to come back in when it's time. They are always trying to find something new to do. I have yet to find one of the kids bored out there. Lots of stuff to do, lots of ways to use it, there is really no wrong way to use the equipment. There is just so many different ways they can figure how to use the hills. They discovered this past summer that instead of walking down the hills, we can roll down the hill and we get dizzy. They are always coming up something new, "I didn't think of using it that way." I like it all. I am outdoorsy. So just being out there. What I like most is the fact that most of our kids are town or city kids so they don't get to play in the mud or the sand or the water like I did growing up, so watching them discover those things and get to learn and do things that they don't normally get to on their own at home. That is the best aspect of the playground

Negative aspects about the playground?

The mud in the spring, that's pretty much it. Because it does get quite muddy because have open areas, but we work around it. It's another learning experience. I really don't have any negative aspects about the playground.

How does your playground compare to a more traditional one?

I feel it adds new sensory experiences. That there are different things to touch: the grass, the wood on the climbers and walls as they pull themselves up. It also keeps their attention longer because there is always something to explore. The playground is never the same from day to day. The fox that was out on the playground yesterday isn't there today, but there are birds out there today. So there is always something new and it really encourages them to pretend and imagine how they can use the stuff around them, instead of just having it say ok, the slides are for sliding, swings are for swinging, and climbers for going up and down.

What is the most popular element and why?

I would have to say it's the hills and the rocks, because they are always going up and down and climbing over them and pretending they are cars or trains or anything else. And they also make for wonderful place for them to climb and see off the top of and pretend they are going off to...who knows where.

What is the least popular element and why?

I couldn't really think of anything and I asked other teachers too and we decided it would be the snow. In the winter we have a hard time getting them wanting to go out and play in the snow unless we are sledding. There is nothing else out there they avoid. Every element is used by five or more children.

What elements would you recommend and why?

The rocks and the hills. We've got the one-foot tall rocks, little bigger for climbing on. Along with the sand, they just love it all. It think it works the best for us, because there is no wrong way for the kids to play with them so we are not yelling at them all the time to go down the slide feet first or don't jump off the swings. There's just no really bad way they can imagine with it.

What would you add to the playground and why?

I would add some sort of natural edging along the edge of our sidewalks where the pea gravel and sidewalk meets because we are always having to brush the pea gravel back up where it belongs because the kids run and they kick it and it becomes a little bit of a danger. That's really the only thing we would change. Nothing at this time, because we are still trying to absorb it all.

What would you remove from the playground and why?

The plastic structures and replace them with something that's more natural. We have the little tykes houses that you can go play in. They don't fit in and they are starting to degrade and break. If we were to put wooden structures in there they would blend in with the playground better and they would last longer.

Does it matter that the playground needs time to mature?

I think it is worth it, starting from scratch. Because the way the kids are playing on it right now, with the little baby trees still growing, they get to see those trees grow up.

And when they are ten or older they can come back and see how big they got. So it's a learning experience that way too, but also in ways, it would be nice if they did come at least half grown because then they are natural barriers or the places to hideout and to make new places. There are pros and cons to both. I like the beginning process so we can see the potential that is has, but I am also excited in ten years to see what it looks likes when the trees are grown and the bushes are filled and how the kids will play with it then.

Does it matter ten, twenty years?

I don't think so because the children that are playing on it now are still getting the imaginative play and the stimulation and motor skills developed as much as the kids in ten years are going to have it. It's just going to be a different learning environment for them and it's going to encourage them to imagine and learn and grow in different ways.

Anything instant?

We would love for some of the shade trees to be bigger. We have bushes that mark the boundaries of the playground so the little kids and big kids don't mix. It would be nice if they were a little bigger so it was a little bit more defined for them. But they do pretty good.

Is the playground interesting all year long?

We spend more time outside in the summer. In the summer we use our shade trees to help cool down and we bring more water activities out. So they can throw it at each other or make little rivers or mud pies of what ever they see to use the water for. In the winter, we see a lot of sledding on our hills. When they go outside, that's the first thing they will do. But they also were building snow forts. We discourage snowball fights, because we don't want someone to get hit by a chunk of ice, but they kind of naturally do that on their own. So they have been known to have snowball fights. I think it depends on the way you look at it. Last week we took the preschoolers outside and were looking at the different footprints in the snow and trying to guess was it a bird, a fox, a cat. So it's not as an active time where we are climbing up the hills and down the rocks besides sledding, but it offers more opportunities to look at nature, to look at the different birds that don't fly south or animals the don't hibernate, so we find the squirrels and hawks and rabbits. One of their favorites things is to in the fall is to rake up all the leaves on the playground and jump in them or thrown them at each other.

Do you think your playground promotes a connection to nature?

Yes I do. It attracts lots of animals so that's one aspect. So we can look at an animal's tracks that we wouldn't be able to from a distance. But our flower gardens, herb, and vegetable gardens are great connections cause we let them go in there and pick the flowers. And in the fall when the vegetables are ready we go in and pick the vegetables. But throughout the whole season we talk about that we are putting these seeds in the ground and in a few weeks then they are popping up and how tall is this corn going to be. There is a lot of different aspects that we don't normally get to look at on a traditional playground. We encourage them to rake leaves but we also collect them and bring them

indoors and put them in water tables inside. We did leave rubbings to see the veins. So to us it offers lots of opportunities to actually bring nature from the playground into our classroom. We have a lot of bugs that migrate indoors. When we talk about doing butterflies in the spring, hatching them out of eggs, it will give us a place to release them because we can plant the flowers that will attract them. So our butterflies will stick around until fall.

Do you see the playground as an educational extension of the classroom?

Yes, it definitely makes many “teachable moments” as we call them. Just this spring we had a very interesting spider living in one of our structures and it allowed us to go in and find the encyclopedia and look it up and show the kids: first of all, how do you look up something, and what exactly is it. So we get to talk about it. We also like to bring art supplies out as much as possible when the weather permits and let the kids explore stuff. We use watercolors and paint on the sidewalk, or on easels we have attached to our fence. We encourage them to go out and find different flowers or leaves. We did leaves in the fall that they could paint with. What happens when you paint with a stick or a flower? They found that some of the flowers fall apart; they don’t work so well for painting, where others work better. Marigolds work better for paints. So it gives us lots of opportunities. We also have had an interpretative center from town come on the playground and talk to the kids about animals that they might see around our area. So they got to know that we might see owls. We actually had a fox on the playground in the fall. It definitely helps us extend what were learning outside and make a connection to its not just in this book we read today, it’s actually out here and we can see it on our playground too.

What activities do you see on the playground?

Everyone?

They all love to bake in the sand box. They will make us cookies, pies, and cakes. They all love the slides. It has helped some of our children who have fears of falling to not be afraid because ours are right level with the ground and it goes right down the side of the hill, so that helps them. All the pretend play, being super heroes, or princesses or camping or doing stuff that that half the time us teachers don’t even think of.

Dry river bed?

It will depend on the day. But usually they have the cars and trucks and they are bulldozing the rocks and making a dam or flattening them out and making roads. One day the kids were pretending there were different kinds of animals in there and they were looking for them.

Boys

They are usually looking for frogs and bugs and different things to catch and bring us. They are also the ones that we have to watch out for because they will be the first ones to jump off one of the bigger rocks or roll down a hill that wasn’t meant to be rolled down. Our boys, they’re not being super heroes, I am not quite sure how to explain it, but they run to the top of the hills and then they look out and yell something at their friends.

“Come and see this” “Lets go do this” on some kind of mission. A look out, that’s the word I want. And then they will go and hide in one of the pavilions and use it for a little hideout. They use the trees for bases for tag and safe places if they don’t want their friend to get them.

Girls

The girls are usually using the chalk. If you come out they will be drawing pictures or they will be playing hopscotch with the rocks. They are usually running around helping take care of the other little kids, showing them how to use the slides or to climb up the hills and stuff. They are usually right in the sand box with the boys making the cakes, the boys usually bulldoze everything.

Anything else?

They are always coming up with something new though because they will be doing it. Out the door there is a large cement slab from the old playground. There are two sheds, art supplies, and hula-hoops. Large ash tree and is growing well. A four-foot hill with a small climbing wall on it and it allows the small children to do water activities as well. Another four foot high hill with a slide built into it. Top of the hill looking towards parking lot there are two rows of rocks in the hill and a pavilion. And they put on little skits in there and sometimes the teachers will read stories while children sit on the rocks. Small hills in the infant area, very small, but for infants and toddlers it’s an exploration because they are just learning to walk. There are also benches that are not even half a foot high they are just barley up so little kids can get up there and sit. The flowerbed is very low to the ground so the little kids can get in and explore the flowers. There are also raised flowerbeds for the older children to plant their flowers. We also have a frame of a barn, in the summer we take mesh and throw it over to make a tent to help them explore and use their imagination in new ways. There is an open area where they can run; there is nothing in the way. They can play ball or what ever. There is a stage for the kids to put on shows and is all pea gravel around. There is a hill that is eight feet tall for bigger kids with a climbing wall and slide. There is also a large sand pit, there is no wood barrier, its just kind of migrates out like a beach. Behind the playground, in the very back there is an open area, but there is also a basketball court. Flowerbeds built in the ground with rocks around them. Through the middle playground runs a riverbed; we filled it in with pea gravel because of erosion. The water likes to drain from our parking lot through the playground. That was one of our problems, but the kids still love it. We planted six new trees and spread them out. The kids are good about leaving them alone especially if we explain to them that they are still growing and we need to be nice to them. The smaller children we might have to remind them to be even gentler and redirect them away. They like to shake the poor trees.

Site C

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

They're 5.

About how much time do the children spend in the playground per day?

One and a half to two hours every day.

How old is the natural designed playground?

Six months.

What was your previous exposure to naturalized playgrounds?

I've attended presentations on natural playgrounds. I have actually visited another naturalized playground and I have read several articles.

Do you consider your role as a facilitator or supervisor?

Definitely as a facilitator.

Which better describes your playground: Naturalized or natural?

I would say natural mostly because it started this way and it hasn't been taken from a more sterile playground to a natural, so it wasn't that process, it was planned to be natural from the beginning. To me, naturalized kind of tells me a space that was not previously oriented with natural that has become so. Where as natural, I guess, is kind of in-between thinking about it more. Because natural would be like let's go out and up the canyon to somewhere that already exists in nature and make that into our playground. I mean, ours was nothing and has been built. It hasn't been so much adding elements as it has been it was created this way and we are learning to get use to it. We still do have our concrete areas and manufactured stuff. The biggest thing I would notice is that with naturalized there is a process of making it more like nature.

Inventory Notes

Nothing to add

Ideals Notes

Nothing to add.

Environment Questions**Is it fun and interesting?**

I kind of say yes and no. I think it has a lot of potential. We are learning too. As facilitators outside, I think we play a big role in how they are interacting with it. I think the teachers role out there, I think there is a lot of potential to make it more fun and interesting than it has previously been. That being said, yeah, its been, it was a little different getting used to it initially. It wasn't so much fun, there wasn't much variety, but we have taken steps already to add things as far as a wind sock to hang up, putting up bird feeders. Trying to help guide that a little more. So I think it started out with a no but it's quickly to more of a yes answer. I think part of the reason that it will be fun and interesting as we tie it into the studies we are doing in the classroom and it becomes more of an extension of the classroom. I think that interest will go up because it will be more meaningful exploration and interactions going on out there. As well giving us places for some of that imaginative play that goes on. So I think we are learning to better utilize our place and connect it to the classroom.

Positive aspects about the playground?

I like that it's a good, large space. There is a lot of room to explore. There are different areas. They have some choices they can make on what type of activities they want to engage in. There is plenty of room for them to run, but also spaces where they could congregate together if they wanted to. I am really excited about some of the growing things that we will see come spring. Being able to see those changes. We have plans to take more pictures so that we can document more changes over time in our classroom, which I think will gear their interest out there a little more. So I think with some of those natural elements there is a lot of potential for on going exploration.

Negative aspects about the playground?

I really don't like our brick hideouts mostly because they are not functional for us. They are placed hazardously where they are just right off the paths where kids are riding tricycle through, so I think the placement is odd and is a supervisory issue at times. Although that not my main complain, its mostly the placement. And considering that is a more naturalized playground I think they could of chosen a more natural looking element that would of achieved the same purpose, like a cave, or alcove in a rock, something like that. I do not love the fence, since there is not another climbing structure out there, the children will gravitate towards climbing the fence and that is not a safe for thing for them to be doing. I don't love the lack of shade, but I know that's improving over time and will get better. And we actually have some ideas to provide alternative shade in the mean

time. We have talked about draping some fabric over the corner of the fence and tying it down or putting up some canopies of some sort.

How does your playground compare to a more traditional one?

Ours is definitely a non traditional. We don't have those structures; we don't have any of those more traditional structures at all on our playground. We have a lot of vegetation; it's a landscaped space. With time, I think I will come to like it better and I think I really do. I like having those natural elements. I believe it's more of an education environment this way than just a way to spend time outdoors. I think it plays a bigger role as being part of our classroom. I think the children interact with it differently. Some things we don't have to deal with are arguing over who gets a turn on the swings. There are definitely some positives. With time and encouragement the children are going to take on to it differently and they are going to engage in more of those imaginative play activities and exploring. Taking magnifying glasses and clipboards and noticing the things that they see and interacting with those as oppose to just running and just gross motor skills that a lot of times happen on a playground.

What is the most popular element and why?

Right now, I would say the snow because there is snow. When there is not snow I would say sand. And I would say they serve similar purposes. They like to be able to dig in it, mold it, and shape things from it, really interact with it. The sand area and I wish it were a bit larger. I hope in the future to have a little more with the plants and vegetation, particularly if we plant our own things.

What is the least popular element and why?

Those hideout things. Also the logs. I don't see that they know what to do with them. We have tried to encourage them, climbing and jumping on those. I just don't see them interacting with them much.

What elements would you recommend and why?

I really like the hills and ditches because they can go up and down. One thing that works really well in the winter because they can sled. They can also roll a ball down or to run and have to move from those different levels. It works really well for us. As well as the ditches, that level of landscaping works well. I also look forward to having the trees. I think they add a nice ambiance as well as function as shade. They are something you can observe the seasons changing as the tree develops buds and leaves.

What would you add to the playground and why?

I would like to add some element for them to really climb. And I think I would love to have it be a natural style element. From raised platforms, from woods with shade and do some activities or put out some pillows or books about nature or something that they could climb, even possibly a wooden balance beam. I really want them to blend in with the natural environment. I want to still present an opportunity outside to them to address those needs. My justification being that we don't allow them to climb inside, we remind

them to keep their feet on the floor. But I think part good child development is giving them opportunities to do just that, to climb, to hang, and to learn to move like that.

What would you remove from the playground and why?

I would lose the hideouts in a heartbeat. I do not like them. I do not see them serving a purpose. They are a bit sterile looking, just a brick box plunked down in the middle of the playground. Beside from just being hazardous, the children don't use them; they are not in a place that is conducive for that.

Does it matter that the playground needs time to mature?

I definitely think it's worth it. I like the idea that it changes over time. I think one thing we could do with such a new playground is kind of take one tree outside of our classroom window and call it our tree and maybe give it a name. Take pictures of it and notice how it changes to give us a chance to document that. Once its there, I am definitely a big fan of the natural shade. I look forward to having mature trees in the playground in the future. I definitely think it's worth it. I love the idea of an environment that they can explore. Yeah, it's tough at first, and getting used to it is a change, but I think in the end I find it better for the children to have had an environment like that. Especially knowing that later on in life they will have so much of a sterile environment, to be able to offer this at a young age is important.

Takes twenty years to mature – initial years?

I think it's great. I have talked about some things that we want to do such as alternative shade in the mean time. We know that's an issue, but we do want to stick it out and make this work. So being able to make some adjustment until that time comes and it's a good opportunity for children to learn how to care for young saplings and plants. I think it's a good learning opportunity that you can utilize for that. I so definitely think it's worth it. As for it being interesting, I think, me as an educator, learning what to do with that environment. I think there is a lot of potential there and we are getting better everyday with interaction. Trial and error. The more I learn about it the better attitude I have towards it.

Is the playground interesting all year long?

Obviously as it gets colder, more of those extra elements like balls and trikes have to be put away, but we also put different things out. So it helps us in rotating in what we chose to put out there. I know that when it's warmer we want to put out some things like cardboard boxes and blocks and some additional elements that they can explore. What I really like with the different seasons is that they can observe those changes. It gives them an environment to see how the seasons change and provides a really good way to us have a discussion when we go and collect the leaves off of the ground in the fall or watch for new growth in the spring. I like that there are different things to observe in the seasons. I think we have been able to adapt as far as learning of different activities we can provide. When there is snow on the ground we can make snowmen or make snowballs and see if they will stick or color the snow. In the spring, we can plant our garden that we hope to do in the spring. We can plant flowers and watch for them to develop. We can break out

some of the warmer day activities such as our tent, which is really neat because they will play camping if we do that. I foresee them using that outdoor environment almost as if they were up in the mountains camping. I am hoping to see that when we put it out there. I think are pros to each of the seasons. I believe that the playground is fun throughout the year. I know each season offer different possibilities, but I think we are able to make the most of it in each of those times. I don't dread a particular season because "oh no we don't have anything to." I think there is plenty to do in each season. In winter, I see a lot of children shoveling, but being able to mold that snow, it's like its one giant sand box. If they want to make a snowman they can, but if they just want to see how the snow sticks together they can. Also we have sleds and with the hill experience. I think we could put out a snow gauge to see how much falls over night when we are gone and a temperature gauge to see that it really is cold. Maybe put out some water and watch how it's frozen the next day. We will bring the snow inside and see how it melts, how long to melt, how dense it is when it's water compared to snow.

Do you think your playground promotes a connection to nature?

I think we are getting there. I think initially no, because we were not quite sure how to get them to interact with it. But as we are adding things, the bird feeders, so they can see the animal life that exists there. Helping them plant the garden so that they will want to see that. I think we will see a lot more of that. Noticing how the trees grow and how the wind blows, putting out wind chimes. I think it will, I wouldn't say it does right now. I believe that a big part of that is how we guide children in that environment. Because with no guidance I don't know if they would quite as much, at least initially, make those connections, although they do like to go and see the flowers and the vegetation. But then again, we want to learn how to care for that and preserve that. I think a big part of that is how the teacher guides the activities out there. And I don't mean that she goes out and dictates what they are going to do, but just including a lesson inside about the outside environment so that when they go out there they have something to look forward to or they are making those connections. They are fascinated by watching birds. Hopefully we will be able to catch butterflies in the spring. They are fascinated by seeing the animals and then we can go in and write it down and bring it back into the classroom. Write about what we saw, like a log of what types of birds or insects we have observed outside so that we can watch that. We can even post that outside. With that guidance, and an additionally thing we can do, act that out. If we create some fabric wings then those children will probably catch onto that and decide to be birds that day and choose a place out there to be there nest. And based on observations they have seen birds doing and act that out themselves.

Natural cycles?

We want to take picture of a tree every month so we can see how it changes over time. We already talk about the leaves fall in the autumn, they fall down, and in the winter the tree is bare, and then the buds start to appear in the spring. But I think being able to document that and post that so we can draw their attention to it more by taking those pictures and putting them up and the children can start to have signals of what to watch for in the future. Lets plant a garden and we can watch for when those leaves start to

poke through the ground and develop flowers and fruit. I believe that as children participate in forming their environment, for example as they plant a flower, make a bird feeder, by putting that investment in they are going to be more likely to observe those things. I made a birdfeeder and hung it up, I am going to be watching for a bird to come and eat from it. I think by letting them invest in that then their motivation to really explore and make those connections really increases.

Do you see the playground as an educational extension of the classroom?

I definitely do. I have always considered that the outdoors should be an extension of the classroom. I believe its good place to facilitate open-ended play and exploration. You can provide a variety of options and know individual children's needs and interests. You can help shape that environment. For example, if I know I have children who really do tend to want to observe, I can provide magnifying glasses, clipboards, and things for them to do that with. I know if I have children that really need to run and play we can guide them towards that in the environment. I think we can meet our educational objectives every bit as much outside as we can inside if we put forth a little bit of effort. I really do see that as an extension, and I tell that to others that come through, I like to share that. It's not just a place to let the children run around and just make sure they don't get bloody noses or anything. It's a place for that rich interaction that happens in the classroom.

What activities do you see on the playground?

Everyone

They really love to play hide and seek lately, both boys and girl alike. They will hide and crouch down behind a tree, even our young trees or go behind different structures. They really like that there are places and they like to have a place where they have some searching to do. They do like riding the trikes, I think they are novelty right now though cause they are brand new. I think that will change over time. They love to play in the sand. Mostly boys, but some girls. I would love to have a mud area where they can add the water and see what happens when I add more and more water and make a mess. They like to run. Girls like to play animals outside. They really like to have a mom animal or care a taker animal, that's something I noticed them with exploratory play. With the boys it's more like lets have a race or super heroes. The girls are more prone to congregate together and work out a more planned imaginative play. Boys really want to run and pretend to fly and make loud noises.

The hill?

Right now everyone uses the hill. They like to use the sleds and they like to slide down themselves or to roll down when they can. On our hill we have rock as well. That's become a real element in the imagine play. That almost becomes their home base. If they are playing some kind of animal that where they come home to. They climb up the hill, that's home, and then they go out into the world and explore whatever and come back to that, particularly with the girls. With the boys its more lets go climb on this and jump off the rocks and run to the next place. It's more of a leaping off point. When we had the plants out, I noticed the girls wanting to do a lot more with watering the plants

and taking care of the plants. Even in the winter I had girls who wanted to brush the snow off of all the trees so they could grow better. So as far as interacting with the vegetation I see that a bit more with girls than boys. I think the boys will have a lot more interest come spring looking for bugs, whether we have worms or anything like that. If we have some of those natural things they can observe. The boys are faster, running jumping. The girls, smaller, lets walk or skip. My boys would be more prone to climb if the opportunity was given. They like to climb on the rocks and jump off.

The log forest?

We are not always down there, but we do go down there in the afternoons sometimes. They will include that into their play, particularly imaginative play. They will make that a forest or play tag over there because there are things to dodge around and hide from each other. That's the interactions I see going on there.

Site D

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

Five.

About how much time do the children spend in the playground per day?

30 minutes.

How old is the natural designed playground?

Three years.

What was your previous exposure to naturalized playgrounds?

Zero, nothing. Seriously, it wasn't a concept. I mean outside of playing in nature, but I didn't think of that as a playground. In a school setting, a playground, I had no exposure.

Do you consider your role as a facilitator or supervisor?

Maybe facilitate them with a game, but mostly supervisor.

Which better describes your playground: Naturalized or natural?

Naturalized would be just how it is. Which it isn't, we created it. So it's natural I guess. There wasn't much out there; it was just clay and grass.

Your playground is natural?

Yeah, we designed it. We put trees in; we put things in on purpose. If there was like an open woods that existed that we put trails in and kids are playing in these woods that were all ready there, so its more natural.

So what would naturalized be?

To me, if I have a field, and next to the field is a woods and we just say lets make this a natural playground so in the field we do some structures but we incorporate the woods that are there and make that some space to play. Trails and anything you want to do in

the woods. The woods to me is naturalized, it's already there, nature did it. Natural means I designed it to be natural. I could design it to be unnatural right? The thing I have is naturalized which is huge, there is a nice hill on it so we slide a lot and kids have blast. If you don't have a hill your naturalized playground is a big open field. Which isn't much, but it's what nature provided.

Inventory Notes

Logs – they are used in borders about the sandbox, we use logs for steps, there's logs in the tree house, there are log seats that are cut so kids can roll around, 7, 8 foot logs that are six, eight inches wide that kids can roll around and put in places.

Wildlife – One kid saw a mouse, and a crow one time landed. Part of it is because it is more natural we are getting more wildlife where before there weren't trees and it was wide open. We don't have any thing that is designed, but it's just what happens in nature.

Ideals Notes

I know last spring they found a frog in the rain garden and there were like eight kids standing around it. I had to protect the frog. Which is interesting because I know there wasn't a frog on our other playground, it didn't exist.

Environment Questions

Is it fun and interesting?

Absolutely it is. It definitely is. And the reason is I don't see kids bored out there. If they are bored they will walk around and sit on the boulder or they will end up in the tree house, which then he turned and did something. Something will draw them in and change. I am not saying its perfect. Kids will walk around, but most of the time they end up getting involved, but its way better than it used to be for sure. It's designed so it does change. The water table, in the fall and you have a dry fall, there is no water and kids come over and say what's going on. Two days later you can have a heavy rainstorm and all of a sudden, wow, look at all this water shooting out here, which then changes the dynamics completely. The sand changes all the time. Some kids dig a deep hole going to china and some kids fill it in. The logs move around, you never know what your going to find. You can pluck grass because we have taller grasses in some places. You can go to the caves; we have some small rocks and bricks, and brick themselves up. Its hilarious, its sort of like they want to be cozy and it's a secure thing. I have seen kids pull out all of the rocks in the rain garden path to let the water flow so they can follow the water flow all the way down. The water flows in a ditch and the rocks make the water disappear and they want to learn how the water flows so they pull them out and make this little path.

Positive aspects about the playground?

You don't think I have already explained that? (joking). Just what I said before there are different things for kids to do. There's different places to play, we have separated active from non-active play and I think that the kids that are not sports kids really like that, because they are down in the lower area and they don't even know what's going on.

Before you were always aware there was this competition in a game that was intense and kids trying to score. But when you are down there, your oblivious, you are in the caves, in the labyrinth, your moving logs around, you don't even know that's happening and I think that really help to calm a lot of kids down. They are not picking up on that part. On the other side, some kids want to be active and that's what they do. So it provides a lot of options for kids all over the places. One of the positive things is that it doesn't dictate what you do. It's imaginative play. When you sit in the tree house, there is nothing in there, so what do you do. Well, you create we are in a ship in a boat or what ever. The boulders came from a local neighbor; they weren't shipped from Taiwan. The slide was made somewhere with oil, but we tried to minimize that aspect of it.

Negative aspects about the playground?

Kids still play kickball and yell and get into arguments. But that's suicide to get rid of those, it's too important for many kids. I really can't think of anything that I don't really like.

How does your playground compare to a more traditional one?

Completely different. I'm just telling you, completely different. We had one of those wooden structure playthings in the middle, connected you know. I can't tell you how amazingly different it is. It is so different; the kids are so much more engaged in play. It doesn't compare at all. I wouldn't do a plastic tree playground to save my soul. Kids know the difference between plastic and the real things. Those plastic one are hideous. We are open to the public so some of the branches get broken off but I trim those which is fine by me because we want the branches up high. But we do have one climbing tree that we allow them to climb. It has nothing to do with a traditional, it is incomparable.

What is the most popular element and why?

I have to pick just one? Its hard, I have three of them. A group of girls really like the water feature and are over there all the time. Where the water comes out the pipe and drops down. The sandbox is definitely one. Kids love that sandbox, over there digging away and are engaged and making stuff. And lastly, a big pile of dirt we put in the corner, they loved it. I am telling you, all it was a pile of dirt. It was their pile, their hill. Those are the three that are used the most. The water is just intriguing because it's water, what kid never played in the water. It's just fascinating, you can float things, you dam it up, and you can all sorts of variations with it. The sand box is the same way, you can dig a hole in any shape you want, how we dig it, where's the sand going to go. There is something about digging in a hole for a kid is just basic. The dirt pile was just their own and in a corner and they created stuff. They loved that dirt pile, we sort of lost it over time as kids spread it out and flattened it. It was like their own space, but it was a dirt pile. The hill is probably the most popular thing. Right now we have kids building chunks of ice because the plow guys plow the parking lot and basketball court. So we have these large mounds of snow and so we have shovels and stuff, the kids bust open spaces. Fifty feet of walls about four feet tall, pathways, rooms. They build these things all day, seriously, there are just walls everywhere. Sometime they build tunnels. And they love to slide down. So snow is the most popular right now.

What is the least popular element and why?

The labyrinth and the amphitheater, those two. Well, the amphitheater can hold the whole school, so I don't think it makes sense to them (the kids) to have a big stage when there are like six of your friends. Its not really designed for small groups. It doesn't do much for the kids. The labyrinth is ok, its brick and stone and I see some kids doing it. But its flat and I don't think it stands out.

What elements would you recommend and why?

The water features for sure, the sandbox for sure and the pile of dirt, the caves for sure. The boulders in certain areas, they sit on them and stuff. So those are definitely working well. For all the reasons I stated, the water changes, you can dig in the sand. The amphitheater doesn't work well, as far as a playground, if that was just a hill and no amphitheater kids could play like normal. The labyrinth, if it wasn't there, I don't think they would notice. If it was taken apart and replaced with grass I don't think they would be upset. Not like when the custodian had to cut down a large shade trees in the old playground and the kids went crazy, we had a funeral. It had to come down due to renovations, but the kids were hilarious. They were really upset and wanted to have a funeral for this big trees. That was the only shade tree we had at that point and they all played under it. If I took a water feature out, holy cow, I would hear it. If I took the sandbox and concreted it up, I would hear it.

What would you add to the playground and why?

I want to get a bridge built over this area that gets wet and it's kind of our walkway. It would look nice and pull some kids over to it. There is not any real deficit right now. I would like to add some stuff, like a rain gauge, but we have to worry about vandals. Our playground is open to the public and is right in the village, so it was designed to be as indestructible as possible. We had a musical item that was wooden and expensive and well done, but the handles kept getting torn off. They are on a wire now. We had some other ones that were pipes, but those were pulled off by someone and so now some are missing. So we tried to make it indestructible as possible. So even though a rain gauge would be cool and bird feeders, I know if they were within reach, people do something to them. Its open everyday and its not fenced in. It's not just for us. My sister visited me and we went to the playground and there was eighteen beer bottles, no destruction, but obviously a nice place to be. We have put two motion detectors to help a little bit. So that's why we don't have much stuff like that. It would be cool to make it more educational and have all that stuff, but it wouldn't last.

What would you remove from the playground and why?

I would love to get rid of the sports area because it's a discipline area, but that's not realistic. I wouldn't take anything out, its great the way it is.

Upper compared to lower

The upper is more action. Kids in the lower are engaged and doing stuff. "They wont let me in the cave" but I say there's no one in the other one. It's not perfect but its way, way

better than it was before. I don't direct them because there isn't a specific way to play, I just watch them. Other teachers do, one helps them build snow walls and such.

Does it matter that the playground needs time to mature?

Takes twenty years to mature – initial years?

I think its ideal, what's interesting is that this is only going to get better. It's like landscaping a house, a brand new house, you put in all these trees and landscaping and it looks kind of nice. You come back thirty years later and what will it look like. It will mature, the trees will be beautiful, and it will have character. So this is only going to get better as time goes on. It's going to turn a playground into a park playground once the trees are larger.

Interesting from day one?

Yeah, the trees are just there, the kids are planning with other stuff. As it matures, think about the other toys and activities that come. Lots of leaves, they will pile them up and play in there, which there are not many now, but there will be.

What activities do you see on the playground?

Everyone

If you were standing in the tree house and looking over the playground. Some kids digging in sandbox, a couple of kids swinging, four or five kids on the mound of dirt. Some kids playing in the caves. A couple of kids in the amphitheater on the grass or boulder. A few kids on the climbing wall, a few on walking along the berm, a couple asking me what I am doing. Some would be sliding down a slide. A few kids playing kickball or soccer.

Boys

Boys definitely are playing the sports, kickball, soccer. More boys dig in the sand than girls, more boys use the climbing wall. Mostly boys on the pile dirt. But these are not exact, as there are always mixed. Definitely more gross motor. Boys want to run, jump, shoot, kick, yell, and argue or dig. Dig real strong, how big of a hole can we make and how deep.

Girls

Girls are generally swinging, and way more girls on the water feature, which is really surprising. They are pulling the rocks and making that path designing stuff and floating things. More girls slide and use friendship circle or sit on the boulders and talk. Definitely fine motor. So pulling rocks out of the path is fine motor and building things.

Is the playground interesting all year long?

Yeah, like I said. The water feature changes with the season. Right now you go out there and there is water leaking through but the whole thing is caked with ice. So the basin where the water leaks down the path there is just a big huge chunk of ice. So the kid's chip away at the ice, sometimes it melts, they take a section out. In the fall there was no water at all or very little. In the spring you should see how fast the water flows. With all

the spring run off from the snow melting, so then its like holy cow. The water feature is affected by the seasons. Snow for sure, in the winter you can go sledding and play with chunks of ice. But the hillside, I always tell people you need to put in a hill somewhere, especially in a winter area. Just don't have a flat space. Kids love to be up and down hills and sliding. I know the slides are affected by the snow, they go faster. Snow pants and snow on a vinyl slide you just shoot out. After snow is packed down you then pop out of there and slide on the snow and they just have a blast. They just come flying out of there. So the slides become more interesting. The sandbox becomes non usable because it's all frozen. The labyrinth and the amphitheater are gone because they are under snow. So some of the features are not useable in the wintertime because they are covered up. Finding something different to do in the season is what natural play is about. In the summer I go swimming, and in the winter I ski.

Do you think your playground promotes a connection to nature?

Natural cycles?

Absolutely, yeah. Water is natural, dirt and sand they are playing with. I have stones and see kids make stone campfires with sticks. I see kids pile things up, ripping out grass in the heavier section and putting it in the caves to make a little nest for worms. Kids had a goldfinch die in their class and buried it in some dirt and they went out and got flowers and sticks and made a little gravestone for this bird. It was very fascinating what they did over this little thing. It was in the fall so they had Black Eyed Susan's and there were sticks. We cut up larger sticks into smaller ones for them to play with. They end up disappearing; I don't know where they go, thrown over the fence, but who cares. They had those on it, and flowers on it, and stones around it. So they created a tombstone for their goldfish. So that was all natural elements, so are you kidding me, it goes on and on. With the snow forts and the walls. We have never had frogs before. And kids said they say a field mouse go under the boulders so that was its house. They noticed that. A crow landed on the hillside, and I have been here ten years and never seen a crow land when there are kids out there with the old playground. There weren't trees or it wasn't protected. First they said it was a goose. "There was a goose that landed". But it was a crow. But the kids were out there, it wasn't looking for food, it just came down. I have noticed more birds out there than I have ever seen, you see jays and robins in the spring. I never remember seeing them before, but there weren't any trees for them at the old playground, they weren't going there. So I have noticed that kind of transformation about it. And the kids said they saw a beaver, but who knows.

Do you see the playground as an educational extension of the classroom?

No, I do not see it that way and I think that part of it is that teachers here do not do playground duty because they have so much to plan for. Which is a downside because if we did do more playground duty we would think of things and see kids in action, its kind of a shame. We can still go out if we have time, but most are very busy. There is not as much connecting as we thought. Most teachers here think of it as a playground; it's not an educational center, it's not a nature center. It's not like going to the Audubon center, it doesn't have plaques and pictures of different birds, that kind of deal, rain gauges sundials. It's really a natural playground period. I rarely see other teachers go out there

with their kids to the tree house and read to them. I would love for us to get out more. The kindergartens planted potatoes and that was great. We would like to see more, but there are a lot of demands put on teachers with federal requirements and planning other things.

Site E

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

4 to 5.

About how much time do the children spend in the playground per day?

60 minutes total.

How old is the natural designed playground?

8 years.

What was your previous exposure to naturalized playgrounds?

I went to seminars, to the national association for the education of young children. So I went to a seminar on natural playgrounds. And I've done research on the Internet and read articles. Just being out there you find new things everyday that you could use.

Do you consider your role as a facilitator or supervisor?

I would have to answer kind of both. Obviously supervisor for the safety of the children and seeing what the children are doing and extending from that. Also a facilitator as far as bringing the classroom outside and using the playground as a learning experience.

Which better describes your playground: Naturalized or natural?

I would say it's naturalized because what was here before, or what wasn't there. We had to basically build the hills but as the years have gone by it has got into its own natural state. The natural playground would be something already there; you are using existing vegetation. Maybe there is a wooden area that you have incorporated into your playground. Whereas naturalized I would say is more what we did. Making it look natural but we had to change it, it was man made, as for building the hills and planting the trees.

Inventory Notes

Nothing to add

Ideals Notes

Nothing to add.

Environment Questions**Is the playground fun and interesting for children?**

Definitely think it is. We have enough wild open spaces for the children to run. Over the years I've seen children use it in many different ways depending on their personalities and what we have out there. I think it provides an environment that allows the children to use their imagination in a way that a traditional one can't because a traditional one tends to dictate how you should play. And I think ours being more naturalized and park like, gives kids a chance to use their imagination. The layout provides many areas where children can run without fear of being hurt or running into each other. We have flat areas, hills, hiding spaces, and lots of areas to explore in on their own. With the sand, water, paths made from rocks. They love in the spring turning the rocks up to look for worms. So that's our big spring fun time. They do that on their own. It does destroy the path a bit, but I just moved some to the garden areas. They are going to do so we tried to provide a place for that. I think the playground provides quite a bit of things for the kids to do own their own and for the teachers to use as expanding their play.

How was it that first year?

It was a bit hard at first because we were used to having more equipment like with a traditional playground and you kind of look out and say ok, are the kids going to find enough to do or are they just going to go around screaming and running into each other. But I think as we got used to it we could find more things to do with the kids. They made kind of their own play with what was available.

Positive aspects about the playground?

Basically I think that because it is so park like and natural and the variety in the landscape, the different textures out there that the kids can experience it's a nice balance of manufactured and natural, using them together. It's a great place for us to hold family events as well. It has a nice comforting look, park like. Every fall we hold a fall festival where parents are allowed to come and we have different activities out there. The parents seem to be very relaxed in it with it being a park like area. I think they can really enjoy it with their children. The sand area is a positive, which seems to be a spot where kids really like to be.

Negative aspects about the playground?

Keeping up with the weeding and trimming, it's hard. When we first did the playground with the gardens and flowers we were told we don't want any balls out here, no ball play. Which we found hard because it's a skill that children need to learn and there is no real good place for them to do the ball play because they were so afraid of children damaging

the gardens and they wanted to keep them looking nice. So that was one area we would really like to change, so they can play ball and not worry about the plants. This is more teaching the teachers, like in the spring the bike path will get flooded and they will say you cant have the bikes out, but I go out and say “go for it,” run the bikes the through the puddles. As long as we have a change of clothes its ok with me. This year we had a lot of snow so it’s prevented the little ones from moving around, because it’s too much. So the maintenance guy made a maze for them.

How does your playground compare to a more traditional one?

Obviously is feels more natural with all the plants and trees. And I think the natural playground provides more opportunities, more imaginative play, which nowadays I think kids get way too little of. So I think it really does the increase the ability for the child to be imaginative in their play and also to explore. There are a lot of areas to explore the textures and the sounds and smells, which leads their discovering and learning. In my opinion, you don’t get that from a traditional playground multi-structure. I think that kids are able to do more self learning and exploring on a natural playground. I think there is a different feel between the two. I think your whole body kind of relaxes more in a natural park setting instead of metal and plastic. Comparing the children when we had the structures compared to now, I don’t know if you can do a fair comparison, because those kids were used to that and these are use to this. But I think that the looks of it are more comforting and more pleasant. We still some aggressive play, but it usually starts out as rough and tumble play, pushes each other down a hill or chasing and running around and it might get a bit more. But they are not really being aggressive. We do some field games. Generally I think the natural elements just give them more opportunities to experience the world around them.

What is the most popular element and why?

They love the hills and the trees where they can hide behind. I think they like to have a little hiding where they feel they are kind of alone and can’t be seen by the teachers, even though they can. But they get the feeling that they can’t be seen. Children like to have their little hideaways. I think it’s a good area for that. Also the sand and water areas are very popular. I think it’s just a natural thing for kids to be in dirt and water. Water is very relaxing material, so the kids just get in there and play in it. I think they feel, when they are digging in the sand, a sense of accomplishment when they dig a big hole. “Wow, look how far this goes up on me now, its up to my knees!” They are amazed when they dig down and reach a different color of dirt than it was before. They also have their trucks and pails. Water and sand just go with kids. You know the first time they are able to pack the dirt into a sand pail correctly and turn it upside down and make a castle, you just watch their eyes go “wow it worked.” They do like the fake tree house. Again I think they like the height of it to look down. Usually there is some scenario going, playing house or it being multilevel, there is one level that has a steering wheel so they might be sailing. They come up with different places to sail to and move on from there, up and down the different levels. Some kids don’t care to get dirty so they are not going to go near the sandbox, especially when it gets muddy. You have others who just love to

climb up and down and love to traverse the monkey bars. I kind of thinks it's not one more than the other.

What is the least popular element and why?

I would have to say the climbing wall is one where the teacher has to get the enthusiasm going. If you get one kid really excited about it, "You want to go over to the wall and see what we can do today," you usually get five or six others following. But I think our climbing wall has grips placed too far apart. But we have had some who have mastered it quite well and climb up a little higher than we would like them to. They are told they are not allowed to climb without a teacher there. So I would say that's the least used. I think a lot of it has to do with having to have a teacher right there. The teachers' attention has to be there and their back is to the rest of the playground. It makes you concentrate on the kids right there. Not too many of the kids go to that on their own.

What elements would you recommend and why?

The landscaping. The grass is keeping up quite well. The variety of landscape seems to work well with the kids and the way it's laid out gives the children places to run and climbing the hills. The one hill that has the slide built into it, in the spring as kids climb up next to it, that grass does tend to die and get quite muddy, but the kids still use it. We usually just tell them they need to stay away from that section. Sometimes we will shut the playground down to grow some grass. There are occasions on the hill we use for sledding that, depending on snow cover, we might have to reseed. The wood structures, we tend to get carpenter bees so we have to treat that.

Sand and water features are great. Places where the children can climb on things. We don't have the rocks or even stumps. I want some stepping stumps at different heights. Make sure you do have hills to climb and different ways for them to climb up and down.

What would you add to the playground and why?

Just one? More sound and movement interacting features. The kids do like to make noise. With their voices, but I would really like to have something that they could make move and make different noises. We are looking into building a large xylophone circling our large oak tree and make it in different sections of different materials. PVC pipes, wood, and metal pipes that the kids would have large mallets that he kids could bang on and then at the end of the section would be some type of large drums in different sizes that they could pound on. We do have wind chimes, but I would want to have more movement things. I saw a snake in a tree that was made out of folded paper and it created an image of a snake moving in the trees, it was hanging from strings. So things like that that can move in the wind and more interactive sound and movement for the kids.

What would you remove from the playground and why?

This one thing I was having trouble with. One thing I would like to remove right now is just our sand toy storage box. Its falling part, we have a Rubbermaid outdoor storage box. It just does not stay together and it's just not accessible for kids to get toys. So the teacher has to get them out for them. I would rather have something where they could get it and return it. We did have a wooden one before; it was still about the same deepness

with the top that flipped up. We always had trouble with it falling down on kids' arms and even the Rubbermaid one has fallen down. They have fallen down on my arms when getting toys and trying to hold it.

Does it matter that the playground needs time to mature?

Looking back at pictures when we first started it and when plants went in and wow, it was really bare then. So you do have to be patient. But the way I look at it is that children grow and change and I think that their environment needs to as well. The changes provide more learning opportunities for them and more observational skills can be used and noticing things around them. If things were the same all the time they kind of tend to go into the background and you don't notice them anymore. So something like this with the plants, and the flowers changing and seasons, it would give the kids a change to notice how nature works and how the environment changes around them. The hardest thing is just keeping up with the weeding and the trimming. We get out there when we think we can and hit the bushes that are covering windows. Weeds are always a problem and you try to get the kids out there to help, but it doesn't last long.

What activities do you see on the playground?

It was very hard to divide it between boys and girls at this age. We have boys who like quiet play in the sand. But the boys like the wide-open spaces that they can run. They love running towards the hill and go up and down and go behind the trees. All the children love to play hide n seek and they do use the natural elements such as the trees to hide. But they also use the manufactured ones as well. I think the boys love the more of the running around, using the bikes to speed around the bike path, usually trying to race with each other. But again, we do have some boys who are happy using the trucks in the sand box. The girls do play house, and cook in there. We have playhouses on either side of the sand box so they bring buckets sand in there and they are cooking up soup or making cakes. Or the multi structure and play tree house. One is typically the mother and others are babies. Some seem to enjoy being the baby and others want to be the director and tell the others what to do. Some girls would rather be running around and doing the rough and tumble play. Some boys might want to be in the houses. One boy considered himself a great chef and so he was always talking about that and in the playhouse cooking up something. I think he did a lot of cooking with his mom. In the summer we put their bathing suits on and they can get really wet and they love to spray each other with the fountain. The thing they enjoy the most is being allowed to make mud puddles and mud pies and constructing their waterways. They really get in there and work together and it gives them an opportunity to problem solve together. "Why is all the water going into your stream and lake and not into mine?" So they have to figure out where can we change the waterway, the route to make it go into yours too. So a lot of problem solving skills go into that. I think just the idea that they are not being told, "Don't get dirty." I think that everyone loves the sand box, we have a connection with a school that specializes in learning disabilities and they came over. Our kids were not sure what to do because these were other kids in their playground but gradually they got to the sandbox and when we turned on the water feature it gave them a common ground where they all could get into it without any difficulty and there started to be more interaction

there. The stone path the kids run on it and walk on it, some teachers don't want kids riding the bikes over it, its not really wide. Generally, I let them go through and feel that it's a different movement and feel to the bike as it's going over a bumpy surface instead of the rubberized path. Maybe in the springtime when there are more flowers and more things to look at they use the path a bit more. I like to have obstacle courses out there once in awhile. Some kids really get into it, so the path is used like that along with the other feature. Then they got into designing their own courses. "Can I have a turn now, can I tell where we are going to go."

Is the playground interesting all year long?

It depends on the teachers. We are encouraged to go out unless the wind-chills are dangerous. The cold and snow does tend to make them keep the kids inside. This years' amount of snow has made it hard to maneuver through the snow. It's a matter of educating the teachers and realizing that its better for the kids to be out there instead of being cooped up in there. The hardest part of the seasons is spring with muddy areas and seeing where the grass has been toppled down from kids. Again, I still think it offer opportunities for the kids to play out there. It's just a matter realizing that it's ok for children to be playing in the mud. We ask parents to bring in a change of clothes. We tell parents that they will be getting dirty and don't bring them in as fashion models. They will be exploring and getting dirty. I think it's a matter of getting people to accept that. I think as the seasons change, the playground is open to a lot of play. I think there is enough area and even through all the seasons they still should be able to play and have fun out there.

Do you think your playground promotes a connection to nature?

Definitely, I think it does offer that to the children. They are encouraged to explore the flowers and plants. Comparing size, shape. I see a flower that has five peddles, can you find one that has more. Exploring the colors and textures. The kids are taught to respect nature, which includes not picking the flowers in the garden, because we want them to understand, so what happens to the flower when you pick it, it wont last forever. But it will in the ground so we want people to enjoy it. But they can pick the dandelions. They are just as happy to pick those. They are taught to respect nature. When we do have birds come to birdfeeders, I have them just sit and watch the birds. When you run up to them what happens? They fly away and you are not going to see them. So lets just sit and watch for a minute. I have seen kids go over to the hill on a nice warm day and just lie there and enjoy the sunshine on the hill. On the climbing wall, we had to close it because there was a hole where one of the climbing mounts was and a bird built a nest in there and had baby birds. We asked them to stay off of it until the birds had left. The way it's set up, with the natural elements, gives the chance to explore and watch the changes.

Do you see the playground as an educational extension of the classroom?

Definitely, again, I think that children are naturally curious about things around them and when things are changing all the time and new things come into the playground as far as nature, a new bird flies in, or in late spring when the caterpillars come in, the kids spend

so much time collecting them. They love them. They collect as many as they can in their sand pale and name them. The general nature things, children love to explore, discovery, ponder, and ask questions. There is no better place than a natural playground where Mother Nature can actually provide the lessons if you just look and kind of expand it. Kids are definitely hands on learners and they can move around, they are not restricted to the classroom and they can move and touch things. So I think there is a lot that our playground can offer to bring the classroom out there. Blowing bubbles on different temp days and noticing how it affects how high the bubbles go or doing it on a windy day; making kites and taking them out and seeing how the wind effects that. We have done experiments where we will wet different types of material and hang them up and how long is it going to take the wind to dry them. Lying on the hill and watching the clouds. We have gone out with drawing paper and said you pick a spot and draw that spot. The idea is that you are observing the stuff that is there and trying to make a visual representation of what's there. We compare leaves, talking about different types of leaves and different shapes and then go out and try to locate those leaves outside and compare them. Or have a book of the leaves and see if they can find one that matches. We will bring the water tables outside which is a different feel. Outside you can splash a bit more. We had a butterfly tent in the room last spring and the kids watched the caterpillars turn into butterflies in the room and then we could move it out to the playground. The kids actually sat with the butterflies and the children encouraged them to fly out and then watch which flowers the landed on. So I definitely think that stuff that happens in the classroom can be brought outside.

Anything else?

We are very pleased with our playground as compared to what we had years ago. Obviously, I have seen a lot of changes. We are always thinking of something to change the outside because we are both believers in getting them outside. We want them outside exploring and playing. Due to regulations the time they have is pretty short so we try to make the best we can. There is a nursing home next to us and we kind of borrow their grassy areas. More recently the head of the nursing changed and she loves children and allows them. I guess the elderly who reside there, fight over the picture window that lets them look down on the kids as they are playing. We are starting an intergenerational program with them, including gardening and story hours, sing-along with them. We just really believe that the kids need to be outside; sometimes they can learn a lot more, even if it's not planned. A teacher can keep their eyes open and really watch and listen to the kids, they can pick up on things that the kids have done and kind of get a lesson out of it and expand it.

Site F

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

4 to 5 years old.

About how much time do the children spend in the playground per day?

About 2 hours a day.

How old is the natural designed playground?

8 years.

What was your previous exposure to naturalized playgrounds?

I have exposure since I have been working at the center. When our center was built, the playground was designed at the same time. After that attending conferences, such as the National Education for the Association of Young Children. They usually have a number of workshops or discussion groups about natural playgrounds. I have learned more about them from that point.

Do you consider your role as a facilitator or supervisor?

With this type of playground, it's definitely a facilitator. Less supervision is, I don't want to say less supervision is require, but just the way the playground is laid out the children are pretty well engaged and we don't have as many social and physical issues with the children.

Which better describes your playground: Naturalized or natural?

I had put natural. Only because like I said, we were very fortunate that when we had this venture built we were starting from scratch, we just had a piece of grassy area. Though, it wasn't as though we had a traditional playground that we were trying to convert over to a natural playground. We were starting out with truly a very natural setting and all we really had to do was bring in the landscaping elements and obviously some soil to create some hills and what not. But really, it wasn't as though we were transforming something.

We used all natural materials, except the slides. The environment provides all the elements needed for children to learn about nature. That's why I was thinking more natural vs. naturalized.

Naturalized?

For me, naturalized would be taking an environment or a playground that's not nature based, more concrete or asphalt, that has the artificial surfaces and all the plastic toys, and other than the fact that you are outdoors, its not nature, to me. That's not nature. Taking a playground like that and inserting elements of nature, like bringing nature into that playground vs. a natural environment where you are just starting out basically with a piece of empty land with soil and grass and shrubbery already started.

Inventory Notes

We have some windsocks, but we do not have a weather station, which would be a really cool idea. This is something we could add. We talk about the weather while we are outside, but we don't have a designated area for that.

Children ride bikes through a butterfly alley. And play in a sunflower circle. We have a wooden swing that is built in under a wooden trellis that is covered with viney flowers.

We don't have anything plastic on our playground. We didn't believe in doing that, so everything is made out of wood and is built into the environment as opposed to a structure that really stands out.

Why didn't you want plastic?

We just wanted to try to stay away from that traditional playground. Personally, the colors and all, it just unnecessary. Its over stimulating, we really wanted to stick with nature and stay as close to that as possible, so it was a priority. Everything except the slides, unfortunately we couldn't get away from that, but they are built into the hillside. So they walk up the hill and slide down. It just makes it so much more pleasant, so much more calming and relaxing. We just enjoy it that way.

Multi-structure?

We don't have anything like that. We pretty much use the landscaping to create the multiple levels of play. They can go up and down the hills and go into the different small buildings that are placed at the top of the hills. So there is really no need to have a particular item to do that, we kind of just let them use nature for that.

Interactive panels

We kind of depend on the landscaping itself, gardens, and nature. As far as kids creating a learning environment we didn't really feel those things were necessary in that there is enough out there that they don't even really need panels.

Ideals Notes

I could see if we had a more traditional playground I wouldn't have an opportunity to mark excellent for all of these, I am sure I would have not been able to do that.

Environment Questions**Is the playground fun and interesting for children?**

Yes, I think that is a lot of fun for the kids. I can honestly say that they are never bored on the playground and we don't observe any behavior issues on the playground. There is lots of room with this type of landscaping. It's very welcoming. There is a variety of material that can enhance the play. We enhance the play by facilitating. They're learning by using the environment, so all of the gardens we have, the flowers, the vegetables, the herb garden, and the trees. We have a lot of birds that come to visit. I mean, one day we put stuff out for the squirrels to eat and the children stood there for an hour watching this squirrel hanging upside down in a tree to try to eat the stuff for the birds. To see young children stand that long watching a squirrel proves a point. There is so much going on out there and there are so many different interests. It's across genders and ages and this is something, based on the area that we live in, a good number of them have these types of environment at home to some degree. We are in a very rural area; a lot of parents have gardens and different things. I think that it is just such a calming playground, and it's just such a natural environment for them, it's like being home and playing and they can really explore a lot of things. The layout of playground, just the shape of it, and they have the small hill in the center as well as the grass area. When we go out there and take twenty kids out there and they scatter to the wind and it feels like there are five kids out there because everybody has a place to go to that meets their interest. They are always having fun, there is never a time when they are bored.

Positive aspects about the playground?

I figured that the previous answer incorporated that as well. The whole environment is a positive aspect, everything. I think what this playground is, is a very positive environment for the kids. Again has to do a lot with the layout, how the playground designed has to do a lot with it. It creates many small areas for the children to go off into vs. whole group. Everyone doesn't have to share a climber or swing set, with this environment they can spread out. Again, I think that the natural element is just calming, just the way the playground is set up with so much nature involved, I think it's just a very calming environment. I think those two things would be the positive aspects.

Negative aspects about the playground?

Nothing as far as the layout. The only thing I could really think of, I don't even really want to say negative, it's more challenging than negative, is the maintenance aspect. That's the only part that's a little bit challenging for us, to make sure it's maintained. We are on a campus here and the guys who come is whoever we get. With so many gardens and things. But we pull from the community and the families as resources in that regard. But other than the maintenance aspects of it, and even then that's not even really a huge thing, but that's the only thing I would consider to be thought of negative or

challenging. It's a hassle, but it is worth it. That's why we stopped relying on the maintenance guys as a resource for the playground and started using other resources. Community planting day or clean up day. It's a family affair and we will come in on a Saturday and do a spring clean up or a planting or a fall clean up. We also use community groups that need to do some type of hours, sorority or whatever. Anyone who is interested in gardening is willing to share their input. So we've just learned what to use which is a benefit in of it self to have that opportunity to draw other people in.

How does your playground compare to a more traditional one?

When thinking of comparing the traditional to ours, there really is no comparison. A traditional playground generally only offers the gross motor and social development aspects. The surfaces are generally hot and not very inviting, they are not aesthetically appealing, most cases. Where a natural playground like we have, it encompasses all the content areas, and its an opportunity for us to have the kids kind of slow down and learn about nature and their environment and to appreciate it and understand what's going on in the world around them vs. the intense play, play, play. They are still playing, but they will stop and listen and look and learn. It really makes a huge difference. I think that is something that a traditional playground cannot offer that, from what I have seen from traditional playgrounds in our area. We have so many opportunities out there to teach; especially the sciences and we meet almost all of our science standards on our playground. So when we write lesson plans for science, it's always on the playground, on the playground, on the playground. We use the playground, with having a small vegetable and herb garden, the kids get to plant the seeds, watch it grow, and then they get to pick the tomatoes and then we come inside and make pizza. It's just an awesome experience to utilize all that. We use the herbs to cook with. We use everything we grow to help feed the kids. You can't do that with a traditional playground. Those kids will never get to understand, where do you get food, "oh the grocery store," and that's the end of that. And even with our pumpkins in the fall, we sit them in garden, we watch them rot and then we watch them get covered with snow and then in the spring time we lift up the rotted stuff and there are the seeds and we see the seeds sprout and we get to repeat the cycle, we pick our pumpkins. Its great cyclically thing we get to do, that you probably would otherwise be able to do. It incorporates the typical gross and social motor skills that they would get on a traditional playground that we are able to turn it into an actual living, breathing classroom, where they get to really experiment and explore. We do that all year around. We are outside everyday. We get to experiments with ice, snow, the good, the bad, what ever.

What is the most popular element and why?

It's tough, because they truly are everywhere. They utilized everything. Every child utilizes every part of the playground each day. Their favorite thing would be the hills (laughs). I don't know if that qualifies for what you're looking for with the question. This time of year, with all the gardens being down, and the trees are bare, it's pretty low key right now. The hill is the big point, but once we get into the spring, summer, fall, the gardens are a huge, huge hit for the kids. We bring out the magnifying glasses; we really help provide materials to get them interested. We are not forcing them to look at it, but

we put materials in the playground that will naturally cause them to be curious and look things. I think a lot of it has to do with how you facilitate. They are going to get some of it obviously on their own, but we try to enhance it.

What is the least popular element and why?

If there was anything, I would say that the least used would be the stage. But that something that's probably not ... as far as putting on a play type of performance, that's what the idea was for it. The kids go over and look, but not really. They are interesting in everything. Because we have the standards we have to have to teach, we are able to pop these little ideas into their heads and then that keeps their interests in the playground. And it's always changing, I mean that the fact that all the natural elements are always changing, that in itself. They like to observe those changes and comment on those.

What elements would you recommend and why?

I would have to say, I don't know if you consider the design of the playground to be in that category. I think the design of the playground plays a huge role in the success of having this natural environment. Mainly because the way it's laid out, with a large grassy area provides for that whole group play, we use larger equipment or activities with lots of friends. But the design of the playground and the way it's laid out, there are lots of smaller areas so the kids can really break into smaller groups or be by themselves or just have one or two friends. I think having that makes a really big difference. I don't get to see that often on a traditional playground, because of the type of equipment. It's so equipment centered that that the children are kind of forced to be in these large groups together on the equipment. And with a natural playground you have more of an open space and you are depending on the hills and trees and the flowers and these different elements to kind of draw their attention to a lot of smaller areas vs. these huge pieces of equipment. Not only that, honestly, those panels, once you smack around or play tic-tac-toe or do whatever you do on that panel, and that lasts you a few seconds and you are done with it and might even be done with it for the time that that child is growing up and using that facility. But here, with the natural element, it is constantly changing. You are never looking at the same thing twice, there is always that change.

What would you add to the playground and why?

I think if I was to add something to the playground, the one thing I would do, especially in the summertime, we have a very large sandbox and it would be some type of shade for those children who enjoy playing in the soil and sand. They will sit there for an entire hour and on some days I swear they are going to get baked. That would really be the only thing I would add. That and your weather station idea. (laughs).

What would you remove from the playground and why?

Honestly, I really thought hard about this one. I could not think of anything I would take out of the playground. The children enjoy every aspect of the playground. I wouldn't change anything or remove out there. They enjoy it all and we don't have any issues.

Does it matter that the playground needs time to mature?

I basically felt that it didn't matter from year one to year ten. We enjoyed it from year one and we are still enjoying all the changes. It just another opportunity for us. It teaches the children the life cycles. They can see how the trees and all the shrubs and everything mature. Its also nice to see just a sense of change, you don't want to always be looking at the same thing, its boring. Its nice to see how things grow, take shape, and how we can change the shapes of the bushes of the butterfly alley or what we can add. Each year we have our spring planting day and we reevaluate the playground and ask what can we add to it, what would be nice to have, what are the children interests at this time. As each class comes through, each year we are able to alter the playground. You can't really necessarily do that with a traditional playground without spending a tremendous amount of money on equipment, whereas here, we can just change what we are going to plant. What new food do we want to put in the garden or what do we want to add to the herb garden. What types of flowers are we looking at doing this year. We have that opportunity which is why we made sure we kept a perennial and an annual garden. We did both so we could make changes and include the kids and families in changing the shape of the playground. It's definitely worth it.

What activities do you see on the playground?

We have the traditional things going on in the sandbox with the kids scooping and filling, but adding the water element to it that we have. The kids build dams and create moats. They do all kinds of things because they have the natural element, the water coming down the hillside. It allows them to extend their play and expand on it and take in different directions that they wouldn't other wise have the opportunity to do so. We have a big thing, spring and summer and fall, we have a lot of rocks in the playground and the kids are allowed pick the rocks up and the kids look for bugs. Everyday you go out there, bug, bug, bugs, that's all they want to do, they want to look for them, they want to lift the tree stumps, they want to look in the garden to see what has changed. We allow them to use the snow shovels for digging, regular shovels as well. In addition to toys, we also have a lot of tools and things that they would use in everyday life. Rakes, wheelbarrows, watering cans, watering hose, lots of different things to help take care of everything on the playground and they are allowed to use them freely. They can do what they like to do. A lot of modeling, as in they do a lot of things that they see what their parents do at their homes. With this age they are really about friends. We have some smaller sections on the outer edges of the playground, like by the trail, we have a small stage up there and sometimes a child will go up and hang out with the flowers and bushes that enclose it a bit. We also have a lean-to and a lot of times one will go in there and hang out and just watch everyone else play. I have also observed, in the summer time we take out a huge blanket and put that under a tree, and sometimes kids will lie down and just crash and look at the tree and the clouds and make up what they are seeing with the clouds. There is an opportunity for them to play by themselves if they want.

Boys

The favorite thing for them is probably the hill; they just run up and down the hill, throwing balls back and forth. A lot of times we get races going where we get to the top

of the hill and they roll the hula hoops to see who's can go the furthest. They are also pretty big on the bike riding to some degree. But for them, more than anything, it's going to be throwing balls and lots of pretend play. Being a dragon or a bear, and they are just running everywhere, especially the hill is a big attraction. It's a nice way for them to release their energy and its nice to have it because it's grass and if they fall then whatever.

Girls

The girls enjoy the flowers. The garden is a big thing. I would probably say the houses, because they pretend they are making mud pies and other things. We do bring dress up clothes out for the stage area so they do like to dress up in that area. We have a shopping cart on the playground, so they like to pretend they are going shopping. And of course riding bikes, that's a big one with everyone. The girls have a tendency to go on the swing. Its just one large bench, one of those old fashioned ones on a porch and its completely covered by flowers expect for that entrance for them to walk into.

One of the advantages of this type of playground is that it's cross gender. There is no stereotypically gender areas or environments in here. Some of it is based on the their peers, the guys are more rough so they (the girls) have a tendency to not be in the middle where the ball play is. The girls still will play with the balls and hoops and the guys will join the girls with cooking and whatnot. There's definitely no gender specific play on the playground.

Is the playground interesting all year long?

The playground, we use it everyday, unless it's a downpour or something. The snow, ice, really doesn't prevent up from going out. I think having this type of playground, we enjoy the changes in the seasons and embrace it as another opportunity to facilitate some new learning and experiences for them. In the wintertime, we bring out the sleds and the kids sled down the hill. Yes, obviously we have to shovel out the bike path, but for the most part there is no difference between one season to another as far as being an inconvenience, its still workable and we are still able to use all the equipment. Nothing changes, the sand in the box slowly gets taken to either play houses, so even when snow covers the sandbox, there is still sand to play with in the houses. They also just replace the sand with snow, there's no difference there. Because of those shrubs that were placed and chosen for the playground we still have some color out there, it's not like its unattractive. We still have some visual things to do. And like I said we still feed the birds and whatnot. We get to see different nature. We go out and look for tracks in the snow to see if any squirrels came out or rabbits came through, or deer, and see what's been eaten. We just enjoy adding all those new seasonal changes. The children love to be out there, it doesn't take any prodding on our part to get them out there. It's just a matter of making sure we have back up snowsuits.

Do you think your playground promotes a connection to nature?

It definitely provides a connection to nature, but again, its something that I believe is teacher facilitated, we had to plan what was being planted on the playground to help

catch their interest and then we had to facilitate that learning each time we go out. Just because of what's on the playground they are getting some exposure, but we help enhance their experience by drawing their attention to what's going on in the gardens and all the different changes that are taking place. It's a collaboration between mother nature and us try to make the use of the situation. There's not a day passes that we don't see something. Obviously the birds are going to be the most popular because of the bird feeders, but we still do see rabbits scurry and quickly get off the playground. There is never a shortage of squirrels around here; with the campus there is always food and things out and about for them so they visit us as well. We also try to draw them in and attract them, right outside our classroom windows. There's constant interaction everyday.

Natural cycles?

Definitely, we have standards here, we have to teach our earth sciences and we have a lot of biology standards, even chemistry and physics. When we look at our science standards here, we are able to fulfill almost every single one on the playground. We can demonstrate and let these kids actually have these hands on, whole body experiences to help them learn about the earth, the weather, everything right down to the bugs. Why the hula-hoop is rolling down the hill. Everything, there is a lot out there that the playground offers and we are able to make those connections by things we facilitate and facilitate that learning by causally bringing it up. We don't go out there and have them sit down and have a lesson, but we put those materials on the playground for them to learn the life cycles and weather cycles.

Do you see the playground as an educational extension of the classroom?

Basically we try to incorporate and teach lessons out on the playground. It can be something as simple as bringing out the water table or bringing out any of the dramatic playthings, any of the stuff can come out on the playground. We also bring out storybooks. One of my favorite is 'Pumpkin Jack' and it's about this pumpkin and it starts out in October and works its way back through. It goes through the whole life cycle of this pumpkin, so we actually use that book throughout the entire year along with these pumpkins. The kids always carve these pumpkins so then we put them out there. They get to see that whole thing taking place. We photograph it, we chart it, we see how many seeds we got sprouts from, and we get to watch their pumpkin vine grow and they get to pick the pumpkin again and take it in the classroom and start the cycle again. That's one example of how we are able to do this all year round. We do the same with the butterflies. We also have three praying mantis cocoons on the playground and we watched the praying mantis lay these eggs. I need to get on the Internet and figure out what these things are because the kids keep checking it, they are in some of these pine shrubs we have. That's just another example, which is really cool because we really don't see many praying mantis around here on campus.

Anything else?

One big thing is just keeping in mind the opportunities it provides to include families and include community members and just all the different aspects. It's just not about having

them get out there, and it's obviously wonderful to have them in that natural environment, but you can really expand on it and include a lot of different things. There's so much you can do with the natural environment vs. a more traditional playground.

Site G

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

5.

About how much time do the children spend in the playground per day?

1 hour.

How old is the natural designed playground?

About three and a half years.

What was your previous exposure to naturalized playgrounds?

I've seen a few articles, really just more of second hand information from teachers who have gone to different workshops. We all share information and a couple of teachers have gone to one where they learned about some of these naturalized playgrounds.

Do you consider your role as a facilitator or supervisor?

A little bit of both. Of course you need to supervise the kids, but a lot of the time you need to facilitate the activity of playing on a stage or a soccer game; you have get those going.

Which better describes your playground: Naturalized or natural?

I would definitely say naturalized because we took a play space that was unnatural and the gentleman who came to help design the playground really came and toured our environment and toured our area and learned about the town and the specific things that surround our environment that made us special and he incorporated all those aspects into our playground. We are near the beach so we have the sand. We have many gazeboes in our town so he felt we needed to have those. He went through all the different types of trees and vegetation that was in the area and tried to incorporate that into our playground. So I think it is very naturalized. I would say something that didn't have any kind of man-made aspects on it. It would be like going to a beach that would be a natural playground

to me. Where you are playing in the water, you make a sand castle with your hands not with shovels or pails. We've incorporated everything in our environment and then added to it to make it naturalized in that we added things to it that are not natural, naturally occurring in nature, in the environment.

Inventory Notes

We will bring water tables out when the weather is nice for the kids to go fishing in or pour water back and forth. We also do car washes.

Ideals Notes

Nothing to add.

Environment Questions

Is the playground fun and interesting for children?

Definitely, the kids are always busy. There is always something for them to do. Even in the colder weather when we don't put out as many of the bikes, they just find other things to do because there is just so much to attract them. They will make little games out of selling cakes along the sandbox. They will line them all up along the benches and people who go through the tunnel they will stop them and sell to them, or collect tolls from them. It just encourages their imagination and creativity I think. It's just a fun and interesting place all of the time, no matter what the season.

Positive aspects about the playground?

All things are meant to be open-ended in their purpose. There is no right or wrong way to play with anything. It's better than a park because most parks are just a bunch of play structures. We tried to eliminate all of the things we didn't like about our previous playground and incorporate all the things we wanted in it and I think we were pretty successful. I believe that our dream came true. It also offers the opportunity to bring the classroom outside a lot more because they can bring science things, they can bring art activities out there and it all happens naturally.

Negative aspects about the playground?

Having used it for three years, there are a few things we might have thought about better. The grasses, while they are beautiful, if you touch them the wrong way, which the kids love to touch them, you can get a nice little paper cut kind of thing on your hand, because they are so sharp. They are big tall sea grasses. Another thing is we planted some beautiful roses on the side of the hill next to the slide, and when they are not trimmed back properly, it's probably not the best place to have thorns, next to the slide. Other than that I really don't have anything, I was very hard pressed to come up with negative aspects.

How does your playground compare to a more traditional one?

Well, first of all, it much more pleasant to look at. Second of all, I think it's a lot safer than all those plastic structures and woodchips and all. I think it encourages much more

imaginative play and self-directed play than the traditional playground. The kids never seem to be bored and things don't have to be replaced as often if you have these big, plastic, clunky things. It's our hope that things won't have to be replaced as often with this type of a natural playground. I would say it feels more welcoming, when you come in you are just like "where should I go first, there's so many things," and it's all open and totally designed for our age group. One of the differences between those other play structures like you see in big parks, I feel like kids get bored with those. They slide down the slide, swing around the pole, go around the thing, and then they are done, did it, done and then they start picking up rocks and throwing them at each other. They are always craving that extra thing and that's what we provide.

What is the most popular element and why?

As far as the natural elements go, I would say the hills. They love rolling down the hills, taking the sleds down the hills, it's just fun to just run on the hills. Getting dizzy, and being at a different height and getting a different perspective of the world around them. For us that hill is only two feet, but that's big to some of them and that's like standing on Mt. Everest for them. It must be exciting. They love them. The stepping-stones like I said are in various locations throughout the playground, some are by the fence, some are going up to the slide and then up to another structure. They love hopping on those from one to another. They are very natural stone and don't really look like a path, but they are stones. They have things engraved in them. We just laid them out like a natural wandering path and they kids love it. They also love climbing on the rocks in the sand area.

Riding bike probably trumps the hills; they love riding bikes on the path. They also love the sand box because it has a variety of things in it. Dinosaurs are brought out. They will come up with imaginative games, pails and shovels to make cakes, planters. The imagination never ends in the sandbox.

What is the least popular element and why?

The thing that really needs teacher direction is the open field. Unless we put the soccer net out or get them going on a game or something, they generally like staying in the area that's more populated. It's not that they don't like it, it's just that unless there is some activity going on, something to draw them out there, there are so many other things that they just don't go out there. A lot of them don't need each other to have a good time. They can go in the arbor or build in the sandbox by themselves. We have a lot of parallel play at this point in their development. They are not necessarily interacting with the person next to them who's making a cake, but they are making a cake next to them.

What elements would you recommend and why?

That one is also the hill. Unless I reiterate the whole hill thing again. I mean for the elements I would say having the little play house, they are all open and accessible, but yet they feel that they are in some little secret club houses the way we have them situated, nestled into trees and some are on top of the hill. So they can have all these different experiences. That gets a lot of use in a lot of different ways and there is nothing really to expect from the structure. The other thing is the water feature; there is a button you have

to press to get the water to come out. We set that deliberately away from the mountain, so you have to get a friend to interact with you. To press the button so you can get the water. Then you switch and the other person can push the button and it comes out for a minute or two. They love that. Really, everything we have I think is really popular and it all serves a purpose. One thing that is really nice is the stage we built. All sorts of crazy things go on there. It's just an inviting idea and there is nothing formal about and that's where we added a marimba and a rhythm instrument next to that. So they can make music while they are up there. I think things like that; open-ended things are good to add in to a playground.

What would you add to the playground and why?

I would add more rocks. They really like climbing on those rocks. The kids enjoy climbing on them and they are natural and neat. Sometimes we take a tape player out there and a nice stereo system would be nice. One thing I would have liked to include would be a more permanent art area that would be available all the time, not just when the teachers want to bring it out. Also, I would like if we could have more garden beds, they are kind of restricted where we have them. I think it would be nice if we had more of an open garden area.

What would you remove from the playground and why?

The only thing I can think of are the grasses, which we love them. They are beautiful and the kids love to hide in them. Right now they haven't been trimmed down from the fall so they are about six feet high. They will be chopped down in another week or so and grow up. They are really beautiful. That's a minimal problem though; we could of picked a better variety.

Does it matter that the playground needs time to mature?

All good things come to those who wait and it is growing every year. I wish we had built in more of a maintenance plan because it does require maintenance to keep everything growing properly and not becoming over grown. Even in terms of some of the wooden structures, we put a protective base on them, but we don't know how they are going to weather in ten years, but they should last forever.

First year?

It was definitely worthwhile. It was a community effort; a bunch of people from our church and school came out to help build it. We saw the effort that went into it, it was definitely worth it. From day one it was a success really, and it's been a joy watching it evolve and grow and come up with things to add to it. It's pleasure to work with it. I felt from day one it offered more than what we had before in terms of activities and interests. We still have the bikes and wagons from before that they do love. But from day one it's been terrific. Before it was a huge expanse of sand and the play equipment was set into the sand, so it was kind of limited with what you could do. Ride the bikes or play on the equipment.

Does maturity matter?

I don't think it really matters. At each stage there is something fun to do out there. Plus we picked plants to suit the playground, that would bloom in the spring or in the fall, but we are not here in the summer so there's no point in having things that bloom in the summer we are not here to see them. Sorry, people who come by in the summer. We picked plants that would be suitable and usable from the beginning.

What activities do you see on the playground?

The boys really like the bikes. Driving them along the paths, in general. They love the sand box. The girls love being in the sandbox making cakes, selling them. They collect cones. Everyone loves the tire swing. And everyone loves all of this, but in particular the boys love the bikes and girls the sand box. In the fall we rake up the leaves. There are a lot of the straw type grasses out there that are coming off of the big tall grasses and they put them in the wagon and they made a hayride. Their imaginations are just incredible. They make a big leaf pile and jump into that. They rake all the leaves up, all the things you used to do as a kid and you can't do anymore. They shovel the snow. The other day they were digging in the beds preparing for vegetables. The girls also like to push the dolls in strollers. Sometimes they will get involved and dig these deep holes and everyone is involved in it. I don't know what they are digging towards, but they do it.

Is the playground interesting all year long?

There's planting in the fall, raking. In the winter they do sleigh rides and shovels. In the spring it's more planting and clean up. We use it year round as long as it's not super freezing. Snow angels and forts.

Do you think your playground promotes a connection to nature?

It definitely does through our planting beds. They are very involved in clearing out all the weeds and making the holes for the bulbs we put in for the fall. In the springtime they are connected with the planting of peas and broccoli and whatnot that we put in, sun flowers. They rake the leaves. We talk about the wind. We had a tree that fell down so we left the empty stump there so they can explore what's going on. They take magnifying glasses to look for things. The changing of the seasons, the colors are incredible. Some of the trees keep their leaves, some don't, what's the difference.

Animals?

We do see rabbits and squirrels out there as well as lots of birds. In spring we hatch butterflies from caterpillars. We watch them go from caterpillars to the chrysalis and then we release them on site in the spring.

Do you see the playground as an educational extension of the classroom?

Definitely it is an extension of what we do in the classroom. Whatever we are teaching we can bring outside. We can do science experiments outside. Or just feel like if they observe something, we can run with that. If someone finds something interesting, some interesting leaves or something they find, acorns, or things like that, we can just go with that and bring that back in and learn from it. They go on these nature walks with tape

backwards on their wrists and collect different things they see out there and the stick them on. It's more of an autumn thing. If we are talking about rainbows in the classroom we can go out with a prism and try to catch a rainbow. It's kind of nature's classroom out there.

Would you feel that way if you had a traditional playground?

I think this is much more conducive to imaginative thinking, to creative expression. Maybe more in touch with the natural world, its just all happening right before you, its not contrived. Like before we kind of had to set up the scenarios if we wanted to do something. You had to set it up to bring it out. Now we just go out there and it's there for them.

Site H

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

3 to 5.

About how much time do the children spend in the playground per day?

2 to 5 hours.

How old is the natural designed playground?

2 years.

What was your previous exposure to naturalized playgrounds?

Nothing out of a small article here and there. Our playground is really the extent of it.

Do you consider your role as a facilitator or supervisor?

A little of both. I am both a teacher and a coach.

Which better describes your playground: Naturalized or natural?

That's a good question. I think it became naturalized. It took a lot of work for us to work with truly a blank slate that had no natural element to it what so ever. We really had to work hard with the designer to come up with a design that would be conducive to what we needed in a very small space and try to integrate as many natural materials as we can into it. I would say that a natural playground would be like going to the park, it's natural, it's everything you need is right there. The kids would use their imagination to extend their play and their stories. Even if you brought a few things from school to play with. Vs naturalized which I think is something we create, teacher directed.

Inventory Notes

We don't get a lot of sun out there; we get a glimpse of sun. Maybe twenty minutes a day and that's it. It's because we are between two tall buildings. Everyone congregates to that spot when it happens, its funny.

Ideals Notes

Nothing to add.

Environment Questions**Is the playground fun and interesting for children?**

Actually I do think it interests the children and they are constantly reminding me that it is. I often wonder if we don't provide enough variety out there for them, but they are reminding me that, again, that they can extend their play based on their own imagination and it doesn't need to be directed by props. But what we do, is listen to the play and ask if they would like additional items for play and kind of help them tell us what that might be instead of us suggesting something so strongly. I am just stressing on the constant reminder. The playground has been transformed so much, even after two years I am still looking to see if we are giving them enough and the children are constantly proving to me that they are fine.

Positive aspects about the playground?

I like that we created a very lovely nature scape in a city setting and that it has all wood features and a COB structure and a tree and a stage and (inaudible), wood logs, sand, and all the things you would find, water when it's warmer. I am very proud of what we created out there in such a small space and how it incorporates the elements.

Negative aspects about the playground?

What I don't care for is how small it is. Not that I am looking for a grandiose playground, but when we have twenty kids out there, it gets a little bit cramped and negotiating space sometimes can create a little bit of a havoc for some of the personalities. They don't really have a space to get a really good run, they just get warmed up and they have to stop. And I wish we had some more sun to grow more things. I am a gardener so I really am hankering for some more sun out there. Little bit more sun and space.

How does your playground compare to a more traditional one?

I believe that when children play in a more natural setting, I think it's soothing. Playing in what you call a traditional playground is very clinical to me. There are a lot of bright colors that send off to the children a different stimulation as well vs. just the natural calming colors of nature. It helps kids ground down, and brings the anxiety level down for them and therefore they can really discover themselves and their surroundings because they are not being interfered with this sensation that they can't even identify with but they are reacting to. I believe the natural elements will set the tone of any play. For any playground how the equipment transmits the tone of the play. So if it's bright colors and kids respond to bright colors and they get aggravated and they don't know it because their bodies are responding to it and the play responds to that. So if it's a calming setting, they are going to respond to that too. That's not to say they won't get wound up and play loud and dig and be vociferous, but bringing it back down to ground would be a lot easier, because they are not irritated and are more responsive to their play.

What is the most popular element and why?

The sandbox and the tree. The tree is popular because it's pretty novel. I don't think too many kids have a climbing structure at home at all. So having that opportunity to really use your whole body. It feels good to use all your large muscles and pull your self up and jump down from something that high is an amazing power. The sandbox I think is just an interesting place for kids. That's where I find some of my challenging kids, they end up in the sandbox, and they find their own place to sooth. But its also a great place to be creative and extend their imagination and really just extend their play altogether. The sandbox is part of their imaginative game that they use the entire playground for. I think it's definitely open-ended. It's a very child driven curriculum we have here, so we support them and parallel with them and research together. Over all, yeah, those.

What is the least popular element and why?

Everything gets played with almost every single day. I thought about this question quite a bit. Everything gets played with, either played or sat on, alone or with a friend, it all gets used. I think some of that is driven by the size of the playground vs. the number of kids, you got to go someplace. If it was larger, something might not be played with everyday.

What elements would you recommend and why?

I would say the COB structure because its pretty hardy material and the material is very lenient, as in you could build anything you want with it. We could create this giant dragon dinosaur with a big mouth so little kids can sit inside of it. It's just wonderful and it's suppose to last a long time. Also, it's created by the kids, that adds a great element to it. The rocks, I like the rocks around the sandbox. I like the natural look to it and it will last forever and has a great texture to it. It also allows for a great topography effect as well. And a climbing tree as well, which might have branches on it as well so kids can hang from it with their arms and jump down. That I think would be awesome.

COB discussion

COB, Clay, hay, sand, and water. What ever you can make out of clay, you can make out of COB. Once you know what you want to make, you just build and shape it. Then you sand it down and seal it. We have natural rocks embedded into for eyes, and teeth. Kids can jump on it, it's tough like concrete, but it's not cold like concrete, its friendly and inviting. You can do anything with it, as far as making benches for playgrounds and parks. You can also do an overhang for the bench with it. And houses are being built with it all the time now. Wood is always a good thing to have. Just like with all wood you have to replace it eventually, but that's a given.

What would you add to the playground and why?

More child friendly enduring plants. They love interacting with the plants but the plants can't endure their constant interactions unfortunately, if someone solves that they would be making money.

What would you remove from the playground and why?

In our playground, nothing. I am serious, nothing. I love everything we have out there.

Does it matter that the playground needs time to mature?

I think it does matter, but I don't see it as a problem. I think it's something we need to work with and include in your planning expectations. That's something that we learned here, we planted plants and after a week some of them are being yanked out by kids and we learned without realizing we didn't prepare ourselves for that and all agree on the communications that we are going to talk to kids about before this went in. I think you need to follow the natural steps what plants need to do and better plan for that. You have to be prepared for that. We went in there with all these beautiful plants and everything was pristine looking and after two weeks it wasn't looking so pristine because we weren't prepared to teach our kids to how to take care of plants. We were a little backwards there. We weren't prepared for that part of the interaction. Now when we bring something, we introduce to the kids first and then we will all plant it all together, so it's an ownership thing. Before we did all the planting, the kids didn't, so they didn't have any ownership. My classroom is responsible for watering the plants and since I took that on it's really changed their level of interaction with the plants. Instead of running in-between the bamboos and pulling them, they run around them now. They are owning the plants by watering them. They don't remember what they water, but they water them. This is also a connection to nature; it's a cause and effect. They are more excited about it, before it was a chore, now they are really excited about watering the plants. The other kids see them water, we have a helper of the day as it rotates, and other kids want to join in. Often you will have seven kids out there water plants, which is fine. I love seeing that, they are all connecting with it.

What activities do you see on the playground?

Boys are often more of the rough play. We actually have a designated wrestling area for that. Their role-playing is far more visibly dramatic and imaginative play is more consistent. The girls also do role-playing, it's a little bit softer, it's not as visually dramatic and movement is quieter, but they also do imaginative play as well. But then they also have things that the whole class does together. I have seen the whole class play on the rock slides and most are involved in the game they created.

How would they use the rock wall?

They walk across it like a balance beam and balance themselves across the terrain. Its maybe eight or ten inches wide, and its not smooth, its all peaky.

The climbing tree?

I have hung a bell up there and they climb up and bang the bell. They will climb up as high as they can and jump down. I hear them climb up there and pretend to be different super heroes and they use the tree as part of their different games.

The water pump?

It's a moveable box in the sandbox area and there is a five-gallon bucket inside that we put water in and they pump that water out into their own pan. They make mud pies or wash babies or let it run down the little carved creak in the rocks. But it's mostly used to make sand castles. Sometimes they will play with the rain wheel, marimba, and sandbox by themselves. They will sit on the bench and read a book or play with a doll. But it's a pretty interactive group. They also use the stage quite a bit. Often they will be sitting in their cubbies waiting to go outside and they will be talking and planning "When we get outside lets be Pokémon, or superman." So they are making plans before they get out there. They play hopscotch out there and freeze tag.

Is the playground interesting all year long?

Well, what affects us the most is the extreme hot or cold because we are covered. So we are protected by the wind and rain pretty much. Rain comes in a little bit. Other than that is pretty much the same. Mostly a temperature change here. But for them, it doesn't matter, nothing stops these guys. I think it is interesting through the seasons. If it's cold out its up to the teachers to help make it interesting for them. Bring ice water out there and see if it freezes over. So we get out buckets and toys and leave out and see if the next day they are frozen.

Do you think your playground promotes a connection to nature?

I think it does in a small part. Being made out of rocks, wood, and the plants, and the sand and water. The moths that fly in here or bugs that get in here. We do visit parks that are nearby. But even the park setting kind of nature is pretty limited too, because we teach the kids to not pull up the flowers or pick the leaves. So do look at worms out there. So we try to take advantage of that. I still hope that we will find a plant that will maybe show us more natural seasons. We have trees just outside of the playground that show the four seasons and we use that a lot, but its not our playground, but its right outside there, it's a tool we use. All of our plants are year round plants.

Do you see the playground as an educational extension of the classroom?

Yes, I do. We don't have that opportunity that often. We might have a bee fly in or a moth and we try to catch it and learn from that opportunity. But I think that the playground should be an extension of the classroom.

Anything else?

Can you tell what's special about your situation?

The previous setup we had out there wasn't working. We had a large house structure that was blocking views and taking up too much space and lots of old toys that needed repair. I don't remember how they got to the part of looking into why a naturalscape. We have a concrete slab and classroom windows and doors on two sides, a partial wall made out of tiles and fence and gate. The only natural part is the stuff we have installed. We want to change out the tiles and doors and fence and get rid of the steel. We also have busses flying down right next to our building because it's open on that side. I don't think the

exhaust is good. Imagine a shoebox with a high ceiling. One long and one short side is open, as in there is no solid wall. It's a thirteen story tall building.

So you tried to create a somewhat natural place in a very urban spot.

Yeah, exactly.

Any particular reason why?

I think to bring more nature in to this urban playground. The play out there is dramatically more, the kids are happier, I mean, you should see it. And the alumni who come back because they have siblings who use the playground and they want to play on it, "Oh, I wish we had this when we were here." I'm like, "I know what you mean." To bring in what we can, what the city would allow. They had to engineer the floor to handle the tree, because it's an actual tree, it's not fake. It's by far more beautiful. I can't remember how the other playground looked. I forgot, we have pictures, and I go "Oh my god, we actually out there in this environment, its horrible, no wonder the kids acted out all the time."

Site I

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

They're 8.

About how much time do the children spend in the playground per day?

30 to 40 minutes.

How old is the natural designed playground?

2 years.

What was your previous exposure to naturalized playgrounds?

Not before we built ours.

So you found information after it was built?

Yes, actually I submitted a proposal, collaborating with [name omitted] about to present at a conference about natural play. It didn't get accepted. But this weekend, I am going to a conference this weekend.

Do you consider your role as a facilitator or supervisor?

Well, at recess I see myself as a supervisor. But during non-recess time, when we use the natural playground as an outdoor classroom, I see my self as a facilitator.

Which better describes your playground: Naturalized or natural?

Boy, I was stumped by this question. You should put this question at the end. I had to do quite a bit of poking around on the Internet. Over all I would say that what we have is a natural playground. I feel that way mainly because what we did with our playground was start over and made it a very natural environment. As opposed to taking our environment already and just sprucing it up. I felt that was my impression of what a naturalized playground was. It was a playground with those multi-level big structures that have been enhanced with more native plants and places to sit for adults to enjoy and to create a

more naturalized setting. As opposed to what we have where we totally scratched everything out that we have and created this environment that more mimics something natural with the topography. Basically with the topography and having all these mini, almost like mini ecosystems. You know, you've got the stream and the pond and we just added the gardens. We've got these groves of trees. I learned that the kids call a certain area the "Mini Forest," and then this is the stream. So it felt like it was presenting its self to me as, like all of these little habitats and ecosystems that we created as opposed to just enhancing what we had. I don't really know.

Inventory Notes

Stream – We shut our pumps off from the underground reservoir to the stream during the really freezing months of the year. Which then leads us to the next question. Dry riverbed? Yes, depending on the time of year. It's a small stream, fifty feet long, so yes we have a pond, which is where the underground reservoir is. So there is a gradient to our stream. So it trickles down, lot of rocks, into the pond. Its like one foot deep so children can go in there and wetland plants that surround the pond, so it's a pond/wetland stream habitat. And there is also an old-fashioned hand pump so the kids can pump water. The stream itself is two channels that come together, but before their confluence, one is dry and the other one is where the hand pump is. So the kids can crank the water and then it come out of the hand pump and goes into the other channel and then they merge together to make the big channel that flows down into the pond.

Logs – We have two rotting logs, one sits right in the middle of the playground and its kind of hollowed out and really cool. All the bark is worn off the top and is really smooth. A lot of time people use it to sit in. I have seen some kids hide in it for hide n seek. We also have another rotting log by the pond, its' got a nice hollow space in it, but its just like a stump, the bottom end. We also have a stump climb. Its different logs, not with their roots, just sawed off. They are at different heights, so the kids can stand on top of them and jump or walk from stump to stump. So we have these very organic logs, and then these, I don't know what to call them, organized logs.

Birds Nest – What we call the birds' nest. It is built into a hillside as well. You take these log steps up to it and its all these stumps at different heights and then its dug out about three feet and filled with woodchips. So you are stepping down into it. So a child's eyes are right at the level of top of the logs and it's a real hidden area but yet very open. But we call it the birds' nest, that's the name the children can up with it for it.

Ideals Notes

Nothing to add.

Environment Questions

Is the playground fun and interesting for children?

I think it is, yes. There is something for everyone. It is amazing how I think different kids do different things. Whether it's building little forts or collecting leaves, playing in

the sandbox, or in the stream. Or even the kids who want to be on the swings or play soccer. We have lots of space and it just seems like everyone is happy. I don't even hear I am bored, I don't know what to do.

Positive aspects about the playground?

I love the lay of our land. Really, the big topography changes were a huge improvement within themselves. It's just, it's really pretty and organic feeling out there. So I really like the lay of the land. I also love the stream and pond and the pollinator garden. It's all positive. The playground itself is super positive.

Negative aspects about the playground?

I don't like the manufactured stuff. I especially don't like the merry-go-round. I think that one just bothers me the most because it was added after the natural playground was built. We had swings before and we kept them and I kind of feel like swings go with it and we were all for keeping them because swings seem like a natural part of every child's childhood. So I didn't have a problem with those. But the fact we brought this merry-go-round in afterwards just really didn't fit, nor does it fit well with me still. It's terrible, seriously, it has to go.

How does your playground compare to a more traditional one?

Our playground is way better than the traditional playground, because I have been through that with this school. Our current playground just really lends itself to more creative play, imagination, retreats, and exploration and education. The educational factor of our playground is way better, from a teacher's standpoint. There are just so many more, teachable moments, because there is so much more natural stuff represented on our playground. I mean, it is the living world, we have a mini forest and a small stream, but it just really opens the door up to lessons about our living world, our natural world. I love going out into the playground, it's really rejuvenating for me, especially when the stream is going. Oh wait, I wanted to say something about the children, the attitudes of children's feelings. One of the biggest things that we didn't notice right away, but after reflection on the teachers end, we've always known the children love our playground from the beginning, like I said earlier we don't get, "I'm bored and I don't know what to do," and the conflicts on our playground have lessened, almost a hundred percent. I felt like I used to spend a lot of recess time helping children solve their conflicts. There was lots of fighting over balls or bases, or this person knocked over my stuff. There's just so much there that those conflicts don't happen like they used to. It's interesting how it happened. It was like, "wow," the children are just playing and we are just able to watch instead of intervening constantly. You know, kids hitting each other, just things that kids do when they are bored or frustrated.

What is the most popular element and why?

I think the most popular natural element is the water feature. They all encompass, stream, wetland, because they are one thing. Kids just love water. It's fun when the stream is going or when the stream is not going. They love it. There are just so many little creative things that happen there. Whether they are making boats or they are just

stomping around in it. They are looking under rocks. Just like the continuous act of filling up a bucket and pouring it out, the repetition that happens on that stream, I mean, I think as adults we would get bored with it, but those kids do not.

What is the least popular element and why?

I really struggled with this question. I couldn't figure out what the kids don't use. So I tried to look at the playground from a different lens. So what I think the kids don't use a lot of is the stump climb that you can walk on top of. I really don't ever see those get used. And I don't know why, I went back to the master plan and I didn't even see them on there, so I think they were an after thought by the landscape contractor we used. So, it's interesting.

What elements would you recommend and why?

Absolutely the water feature. I feel like I keep saying that, but it really is so fun. I think it's the best of all worlds because it's super fun for the children and I think as a teacher, it is probably the school, isn't a stream naturally, it can be more of a harder thing to try to teach without having one. When we are talking about little, all the small living things in water, or all the tiny invertebrates, or when you are talking about the life cycle of different insects. Those that start out as eggs, that are in water that then become larva. I just feel that the stream is an incredible teaching tool.

What would you add to the playground and why?

I would add an orchard. Because I think that the trees themselves and the design of an orchard, I think children would really enjoy playing in trees with that layout. And it would also offer, apples, apples fall on the ground. They can eat them, they can make things with them. It lends itself to a lot of different lessons. Also it could attract different wildlife to the playground. I just think an orchard would be a really fun element. I could be really wrong about it. I just want that because I like the gardening element and teaching the kids where their food comes from. So I think that an orchard would be a good thing to add. And also, because the playground we have is awesome, it has so many features. One thing, the children really want a labyrinth.

What would you remove from the playground and why?

The merry-go-round. When I went back and read this question based on my observations, I still really wanted to ask the children what they thought, because we do talk to them about the playground and haven't done it in a while. We talked about what they liked and didn't like and the least favorite for the kids is the merry-go-round as well. I think what we have in terms of manufactured, the swings, the soccer goals, and basketball. They work and kids like that stuff and they need that. We need the soccer goals for our health enhancement program. So there is a balance of what we need to keep and that's a really flat space. We didn't do any earth shaping over there because of our health enhancement program needs that space. I don't mind the swings and those. The merry-go-round came in after everything else went in so it was like we took a step forward but we then also took a step back when we installed that. Nobody asked for a merry-go-round and all of a sudden there it was.

Does it matter that the playground needs time to mature?

Oh, well, I can tell you the initial years are super fun and I don't think time matters. I think it will be great in ten years, but its going to be different and every year its going to be different because more plants are growing, trees are getting bigger. But also, some trees could die; some trees could get knocked over in a storm. I think that in every aspect it's providing an opportunity for the children to be in a more natural setting. Whether its more mature trees vs. newly plants ones. I think there is a lot to be said for the children being a part of watching those grow. Especially these children here now because they are going to always remember, "Oh this was what our playground was like before, but look at it now," as opposed to the children that start when the playground is mature in ten years. It will be awesome then, but it's awesome now too.

You thoughts on how you felt at first?

Initially, what we had to do is we had to give our children more recess time because there wasn't enough time for them to do everything they wanted to do. Also because our playground wasn't ready at the start of the school year, it was ready about a month into the school year. So our children, in the spring, we had a ground breaking ceremony and every child had a shovel and every child had an opportunity to dig in the dirt before it started. So when we came back to school it was almost done, but the sod had to take and the grass seed had to take. So those things needed to be in place before fifty kids could trammel on it. That month of waiting for the playground, in Sept, which is one of the nicest months in [location omitted], so it was very hard for our kids. The first day we open the playground I think we were outside for two hours. Never once have I heard kids say they are bored on the playground.

What activities do you see on the playground?

The boys are always in the sandbox or the stream. In the sandbox, they dig. Boys are just diggers. In the stream they are turning over rocks, putting things the in the water, little branches or leaves and watching them float down. The stream and the sand box are right next to each other. It's not really a sandbox, but more of a sand area. The girls usually hang around the trees. We have this little grove of trees and it just always seems like they are just hanging around there. They are building little mini fairy houses or they are on the swings. And the girls hang out in the sandbox too. I think that everybody is in the stream and the cave is really popular. I think it's a lot of in and out of the cave, a lot of hiding and little imaginary games that all the children play. So the cave sometimes, when it's really hot, offers a nice cool reprieve, its totally shaded and dark. It's really cool in there. On the hills, there is lots of rolling down the hill. I would say everyone rolls down the hill.

The Birds' Nest?

It's like the cave, it's like one of those places that the kids are running around and then they run into the birds' nest and do whatever and they pop back up and run on with their game. It's more of a transient zone. That's where you can get a group of girls who just get into playing some imaginary game. They create and call that their spaces, so we have

to emphasize to everyone that the playground belongs to everybody and there are not exclusive areas.

Is the playground interesting all year long?

Well, I think that is where that topography changed our playground so much because in the winter our playground is covered with snow, many months of year. So the hills just lent themselves to making big snowballs and rolling snow down the hills, sliding down your bottom on the hills. So the topography really helped during our winter months. It made our playground so much more interesting and then, really the sandbox is covered in snow all winter so it doesn't really get touched all winter. And then the stream, turns the pump off because we don't want it to freeze underneath. So it's a dry creek but with snow.

So is it still interesting in the fall spring?

Oh yeah, when all that stuff is available. That's when all that stuff gets used, it doesn't matter. The leaves are falling and they are raking them up and throwing them all around.

Do you think your playground promotes a connection to nature?

Oh my gosh, yes, it does. It certainly provides a connection to nature. And what I think we've done well, is that we have created these different ecosystems that lend themselves to educational extensions of the classrooms. When we are studying leaves, we have all these different types of trees, so we can go out and look at the different deciduous trees or the different evergreen trees we have. So we can study their leaves and their bark and their shape. And the mini forest, we can look at how the ground is different under the trees there where are a bunch together vs. trees that are more in solitary stands. Weather observations. We have a great weather station that we are able to watch all these different aspects of weather. Stream study, if you want to look at macro invertebrates in the stream, underneath the rocks, wetland plant studies.

Do you feel that your playground goes through Natural cycles?

Oh yeah, with the leaves. Trees are a really big example, but with the trees, the grasses, our pollinator garden now that we are approaching our one year anniversary, so that will be a great natural cycle to watch since they are all native plants. This will be the first we've seen our wetlands go through this cycle. Birds nest in the nesting boxes. Especially in spring, it's a fun time of year, I think. To be outside as the snow melts and we have been talking about insects in our classrooms lately and so the insects are popping up. We just finished talking about fungi and snow molds. Our playground is fantastic connection to nature for our kids.

Compared to a more traditional?

Well, I feel that because our playground is, maybe because it is very well landscaped, and we have the garden and water features. We see that outside everywhere, weather its in the mountains or in the subdivisions, we get to see the different life cycles right here. All playgrounds have that, but there is also, we can go sit on the amphitheater and sketch the stream, which it is right by the stream. Or sit on the benches that are placed about the

playground. We just really encourage observation and getting the kids to listen to what's going on around them. There are times when we are like, "today during playtime we are going to only play with natural features," to encourage them away from manufactured equipment.

Do you see the playground as an educational extension of the classroom?

The weather observation, the stream and wetland studies. The use of the amphitheater for dramatic play and lessons. The trees and flowers for botany studies. Pollinators, bees, birds, bats, butterflies. We use our pollinator garden and observe what types of animals we attract with the plants we've planted. Do we get hummingbirds, what kind of insects are coming in? All based on spending time outside observing what's going on in our playground. We also have the bird boxes and we go around and check those, but trying to be mindful if there is a bird in there we don't disturb them. Last year we had a mallard pair come to our pond and nest. We thought it was fantastic. We roped it off and tried to make it so the children were aware of the animals and they were nesting there.

Site J

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

5 years.

About how much time do the children spend in the playground per day?

An hour and 45 minutes to 3 hours.

How old is the natural designed playground?

4 years.

What was your previous exposure to naturalized playgrounds?

I have taken some classes in early childhood education that had addressed natural playgrounds. Nothing really previous to the exposure to the naturalized playground that we have now. It was all kind of after the fact that I have been working here that I took some of that and I have actually read a book on natural playgrounds.

Do you consider your role as a facilitator or supervisor?

I always see my self as a facilitator. For me being a teacher I am always a facilitator.

Which better describes your playground: Naturalized or natural?

I thought about that a little bit. I put naturalized because it's obviously not something that is already kind of established and it's still fairly new. I think that maybe in the future I might want to classify it as natural environment because right now its still pretty new. All the trees and shrubs are very small and we have some issues with some of them dying and they've had to be replaced and they think once it matures I might be able to describe it more as a natural environment.

Definition of a natural playground?

I think more like, a campground comes to mind, just something that's there, its already natural. I think that for our playground, I think they did a really good job, but I don't

think that you can totally make it natural, I mean it's still manufactured to some degree and even though you have the best intentions to make things work right and you have ideas. Once you get it and it's working, it's not always used in that way. The bark chips don't always stay where you want them to stay. And I think in a lot of ways the playground is setup for kids to fully explore, but then we also don't want them to fully explore because don't want them to mess up the bushes or get into the bark chips and make them go into the sand. So I think for it to be natural you have to really let all those elements really mix and not be worried about what the end result would be.

So what you are saying is that you are trying to make it natural but your always going to have some level of limitations for what you can actually let them do.

Definitely, you definitely have some limitations. I think we have moved away from that a little bit because it's going on the third year, but for a while, it was definitely they have to stay on the path and I think "So what's the point then?"

Inventory Notes

Logs – They are all kind of the same height. I would say they go up a hill and they are in the ground. So they are not different heights, just kind of like stepping logs.

Cave – Kids call it the bear cave.

Stream – It's a rock with a push button and the water goes down a hill into sand area.

Ideals Notes

Nothing to add.

Environment Questions

Is the playground fun and interesting for children?

I do think it is. I think that they do really get involved outside and are able to experience nature for the most part. I see them using their imaginations in their play a lot more I would say and the fact that our sand area is so large that you can have a large number of children outside and they will all be able to be involved and engaged and like really involved in what they are doing. I just see that there is a lot of different opportunities for them, that they can do. They can ride bikes if they want to, they can go dig in the sand if they want to. But really over all what I see since the change in the playground has been that there is so much more imaginative play and a lot more moving around I would say.

Positive aspects about the playground?

I would say that the sand and water areas is one of the most positive things. It's such a large area and we have a spout that the children can freely push and water will come out. So that's really nice. We also have a stream that goes down into the sand. So there are a couple of different places they can get water and they can mix and incorporate them. When it's nicer out they take their shoes off and they can really get involved. So I would say that's a really big plus, the fact that they did design it so large.

Negative aspects about the playground?

I am not very fond of the bark chips. I think that the bark chips become problem some. I think that we have designated places that children are supposed to walk and I think, what I said before kind of hinted at it; they had the best intentions I think in mind, but when you provide a very narrow path to walk up steps and all along side of it is bark chips, they are probably going to walk in the bark chips as well. I think they have become a problem and they replace them often. When they replace them they just slide into sand areas, the way its set up. For me, bark chips.

Is it doing everything you want it to do developmentally?

Yes, it is, it definitely is. There is a lot of different ways to challenge the children's gross motor skills I would say. Even from the littlest to the oldest because we have a six foot rock wall with various ways, more challenging or less challenging, there are also the hills, the stepping stones, mounds that the children can climb, so there are a lot of different ways for the children to challenging themselves. I see it a lot of times where at the beginning of the year a child can only go half way up the rock wall, a few months later they can go all the way up. A few more months and they are trying the other side that's more challenging, so I think that there are a lot of ways that it meets their developmental needs along with their social and emotional needs as well. I think there are a lot of other positives too. I think that just the fact that there is a lot of free space to move around, where before it was like, there's a play structure, and there's a play structure, and there was a lot of space not being used for children. There's like a lot of landscape space where they are not supposed to go into. So now, because they can go into pretty much every single part of the playground, I think is a positive.

How does your playground compare to a more traditional one?

I definitely think it's much better. I think that it is a lot more interactive and it allows the children to become a lot more creative with their environment. You can see them really thoroughly exploring it by taking the sand and pretending the bark chips are this or the water is this and mix it and getting their hands in it where you would not see that in a traditional playground. In my opinion, I believe that this naturalized playground is much better and I am not seeing them get bored. I used to see that before when the kids start getting a little older, they've been here for a while and they get bored and you start to see a lot more challenging behaviors because kids are now play fighting and hitting each other and I do not see that as much. I see them a lot more engaged. They are able to explore things a lot more. That's kind of what I mean when I say they are able to be creative and use their imaginations so they can explore more. They have so many more options where if it was a traditional playground, a climbing structure is meant for one thing, but a sand area is meant for many different things.

What is the most popular element and why?

I would have to say the sand and water area. I think all the kids go to that and I think that's got to be the most popular element. Part of the reason why they like it is because I think the kids have been exposed to sand and water play before, weather it's a sandbox somewhere or at the beach, so it's a familiar item, but yet they are able to maybe take it a

step further here. They can get their own water, they can get how much water they want. They can use the sand in anyway they want. So it's a little more creative, maybe a little more free. I think the fact that it is a pretty large space isn't placing a limit on how many kids can go there. So with the children knowing, "Oh it's so large," also makes it so they want to go there and define their own space.

What is the least popular element and why?

I see what is the least popular, which is interesting that it is something that is manufactured which is the instruments. I see the instruments rarely used. I don't know if it is because it doesn't allow for a lot of creativity. Obviously you can play differently, but its wind chimes and a large drum they can bang on and that's about it. I would say that's, there are three instruments and I rarely see them used.

What elements would you recommend and why?

I think that the different levels in the playground is really great. I think the various mounds that go up are great. I think the rock wall has been effective. At first, I wasn't sure because you have to have a teacher right there and the fact they might fall or something. But its amazing how competent children are when you put that confidence in them. They learn to trust themselves and they learn only to do what they know they are capable of doing and so I think the rock wall is a really great learning tool also because they learn what they can and what they cannot do. So the rock wall I think has worked really well. I would even say, through time there have been elements that I have seen now this year or last year, it seemed like they were more popular, like the house. I didn't see it being used as much, but now I always see it being used. There are always kids in there playing, talking, and pretending. They didn't use to use the bear cave that much, now they go in there all the time and do imaginative play. So those different things, at first it was like, they were not that big of a hit, but now it seems like they are. And obviously the sand and water area. I think the fact that children can push different buttons at different places on the playground and have the water come up themselves vs. it just running, I think is a nice element. I like the open grass spaces, so there are spaces to be in the grass, but we do have some bike paths and concrete that the children can then ride their bikes on so they have that aspect also.

What would you add to the playground and why?

For me, would be to use the trees and shrubs in a more natural way so that they are creating more of a natural playspace. There is only one little space but the shrubs kind of allowed that. I think that's what the playground we have is actually really lacking. I think the landscape isn't providing as well as I think it could and should. There is a factor with the trees maturing, but I think if they would of planted some more bushes strategically, to allow for open space in the middle of them would have been a really good creative idea.

What would you remove from the playground and why?

I think the bark can be problematic. I think in some areas it works out, like by the rock wall, it works. But the places that it seems like it doesn't work are on the hills, where the

kids are wanting to climb through there. Maybe just having dirt, its just seems like the bark moves so much and they are really large bark chips. It doesn't seem like it works as well as something else might work. Everything else seems to work really well.

Does it matter that the playground needs time to mature?

This was a very interesting question and it made me definitely think about that. I do agree and I think that's very true. Year one is going to be very different that year ten and I even see year one being different than year three. I'm excited to see it in seven more years and see how the trees have grown and the shrubs have filled in and how maybe the children are using the different spaces differently. So I definitely agree that it does take time.

Does that matter?

I think that if people can hopefully understand that that's kind of the long term out come and keep that in mind I think that it shouldn't matter, but some people, we live in a fast paced world and people want things now, so I think it could matter to some people.

Year one?

I can say that it has always been a very exciting place. It's just like wow, there's so many things, and I think that it was the newness for a while. And then you started to see how maybe things didn't quite work right, or the expectation that kids don't run up and down the hill is not going to be a good expectation or that they don't walk on the bark chips is going to be really ok. So I think there is a period of time for little bit, maybe administration was wanting us to stop children from doing that and having that exploration where for me it was very hard to do because I didn't think that that was ok. So I think we have moved away from that and I think I see now more of things coming together a little bit more. The thinking of staff has changed a little bit where its ok for them to really touch the trees and go on the bark chips and go up and down the hills. I think at first its just different, its like taking it in and seeing how the kids react. It definitely felt different from having like, a climbing structure, it was an adjustment. I think for me, if I hadn't been teaching as long as I have that I might have taken it more as "What are they going to do, there's just sand and hills, what are they going to do?" But I was able to step back and really observe their reactions and see that it worked for them.

What activities do you see on the playground?

I see the trees right now, they are pretty young, so they are pretty little, and like I said we have had some issues with them staying alive. They run through the trees, they do look through the trees, they are very hands on with them. There is a lot of reminding to be gentle with the trees. You can find bugs and spiders in them and so there is a lot of that, where they are exploring them and what's in there. I see in the future that being a really key thing that they can explore even more. In the sand area, it does vary with the different months, like right now we do not have the water turned on but the kids are still getting in there. We have rubber boots available so they still get in there. We don't see as much play in there, but there is always digging, they are always interested in trying to build sand castles or build houses, but there is just a lot of pretend play and house play.

One's the mom and one's the dad. There's a lot of interactive play amongst the children and there is a lot of opportunities for them to play by themselves. I guess depending on where they are developmentally, they will do that. They like to bury things and then find them. Once the waters on, there is a lot of getting wet and enjoying the water weather.

Activities both for boys and girls?

Grassy spots – We have some issues with the water draining, so right now it's pretty muddy. But when it gets warmer we'll bring blankets out or read books out there. Soccer, even last year, we had a lot of, kind of like little gymnastic things, try to stand on your hands. There is a lot of stuff you do on the grass, lay down, look at books, hang out, tell stories, those things.

Hills – The hills you usually see the kids, they like to roll down them often and I see a lot of running up and down on them. Those are things they like to do the most, run up and down the hills.

Shrubs – There are some bushes that they have kind of gone into and they will play in there and do some pretend play. Unfortunately, I feel that's one thing I feel we are lacking a little bit, a place like that, that even the bushes or trees naturally create a place that they can go in and play. There is one spot that they do that.

I think that the boys move around a little more and I see them just running around and doing imaginative play. I see the girls seem to be a little more stationary than boys, but they are still very imaginative in their play. I just think they kind of choose an area more that they want to play, where sometimes the boys may not just stay in a certain area, they might take their play throughout the whole playground.

Is the playground interesting all year long?

I definitely do. We try to go out everyday, unless it's freezing or pouring down rain and that's always a sad day. I mean, it was raining today and we were outside. There are some covered places they can go and I think that that is great, like the bear cave or the house. We do have some large tarp/tent things so you can kind of get under there. So there are some places that they can kind of go. We are in [location omitted] and it rains and I think the kids and parents are ready for that and the kids able to have fun and get involved when the rain gets in the sand, it just makes for good digging. We don't have a lot of snow, so we don't normally deal with that too much, but if there was snow we would definitely be out on the playground and that would be fine. In the summer time and spring, we will start having the water elements on and that will change the play to a point where they just have access to water. Another thing they can add to their play. I think it's nice that at different times, we know the waters going to be off. Their play might gravitate towards other areas and not as much in the sand areas, but once the water comes on, that sand area does become a big feature, especially for the kids who are very sensory oriented. You know there are a lot of kids that do not like that, but the ones that do, they will be there the whole time if they can. So I think its nice that there are some

changes throughout the seasons. I think the aspect of garden can be added in there. We don't have a large gardening space, but we do have a space and so that's really nice that we can bring that in there. I would like to utilize that a little more because you can really garden throughout the whole year.

Do you think your playground promotes a connection to nature?

Yeah, I definitely think it does. I think for the most part when they redesigned it that it was meant for children to explore. I think at first we kind of got sidetracked as to "lets keep this really expensive playground beautiful." I think we have really gotten into the mind frame now that it's for the children to explore. The bark chips and sand are going to get mixed together and that's how they are going to really explore that and see how that material changes or they touch the plants or touching the trees and looking at the buds that are growing and we have a lot trees that have different flowering buds so they can really look at that and see the differences in the plants. Look at the seasons of the trees or the flowers and when they bloom. We have a warm box out there and they can get into that. So I think there is a large connection to nature that they can really learn a lot. The plant cycle or the tree cycles. Even though the trees are not bearing fruit they definitely show that. I think that they would show more as the years go by. But they can definitely see that the leaves are turning color and dropping to the ground and spring comes they are going to grow the leaves back and then the buds are forming and then flowers and then fruit, so they will be able to see the whole life cycle.

Do you see the playground as an educational extension of the classroom?

Definitely. I think that we have done various different things in the past and we will continue do in the future that we are able to really, what we see the children interested in what we are doing in the classroom being able to then go out and see it firsthand hopefully, whether it's a spider spinning a web or planting a garden because we are interested in planting. We first start the seeds inside and then transplant them outside and see how they grow and the life cycle of the plants. We have had a praying mantis egg case, which we let hatch inside and then out it out on the playground. We also have to find aphids and bugs to feed it. So I think definitely, I would say the whole center here uses the playground in that way. I think you could take something where the kids notice ants outside on the concrete or in the grass and they might become very interested in them and then just saying let learn more about them and getting books from the library or something and just expanding their knowledge of how ants work.

Anything else?

I think that after reading the book I read and doing some research on my own and just really being able to see first hand the difference between the playground we that we had before and the playground we have now, I can see, in my opinion, I think its so much better. So much better to have this naturalized playground and really see how [the children are] creative and they get involved so much more.

Site K

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

5.

About how much time do the children spend in the playground per day?

Between 20 and 90 minutes.

How old is the natural designed playground?

3 years.

What was your previous exposure to naturalized playgrounds?

We have read articles and read books. We have gone to training classes.

Do you consider your role as a facilitator or supervisor?

Facilitators here.

Which better describes your playground: Naturalized or natural?

Let me start out by saying that this was something we didn't agree on, some said naturalized, some said natural. However we came to an agreement. We think its naturalized because we made it using elements of nature but also there's manufactured objects incorporated into it. A natural playground would more something that was pretty much all nature, no manufactured objects, no picnic tables, no fence, no anything, just interacts with nature completely.

Have you heard these terms before?

We went to a training last spring and we talked about the natural environment in the play places, bringing nature into the class and going back to nature out on the playground. So we talked a lot about nature and how it plays a role. But I don't think I have ever heard it specifically called naturalized.

Inventory Notes

Nothing to add.

Ideals Notes

Nothing to add.

Environment Questions**Is the playground fun and interesting for children?**

Our playground requires creativity, exercise, and imagination. We have a garden area, sand areas, grass area, rock area, and some tables, which allow children a variety of choices and environments in one central area. So this makes that area more fun for them, having those choices and going back to nature. Also they need to use their imagination and be creative and actually exercise to play.

Positive aspects about the playground?

We liked the fact that the children interact with nature. The space and design require more imagination and creativity and over time it gains worth and value whereas a typical playground degrades and loses value.

Can you expand on the value idea?

A typical playground you might see manufacture climber, swing set, a slide. Over time the bolts rust, the paint chips, the pieces start to fall apart, and it's not as attractive or safe as it was once and you pay thousands, even tens of thousands of dollars for the equipment, where as our play garden we might spend any where from five dollars to five hundred dollars, but we don't spend it all the time and it continues to give back to us. You know, if we are spending that money it might be for a tree that provides shade, and more shade and more shade. Or it might be for a tomato plant that gives us thirty tomatoes. So we feel like our playground is going to continuously give value back to us and continue to be a beautiful space and something that would be inviting. Also, if for some reason if our center wasn't here fifty years from now, that space would still be there and be beautiful.

Negative aspects about the playground?

We said that there is more upkeep and care than a traditional playground on a more continual basis. For example, mowing and weeding. It takes children continuous practice to get used to playing in this environment. They don't just walk right out there and do it. It always starts out "I'm bored, I'm bored, there's nothing to do here," then it goes to "Look what I made, look what I did, look what I am!" But to start out, I think it's a rough road and you almost have to facilitate, you have to get in there and show them how to play because a lot of them do not know how.

How does your playground compare to a more traditional one?

We said that our playground is much safer, it makes children use their imagination, but it's also more work.

Can you expand on children using their imaginations?

For example, I think if a child walks out on to a traditional playground and they see a swing set and a slide, they are not going to go over and grab a handful of leaves and go make something with the leaves, make a pot of stew on a cold day. They are going to go over and fight over the swing and fight over the slide. That's what they are going to be interested in because that's what they see and that's where they are directed. Where as, on our playground, there's not a swing and there's not a slide, so they have to look and they have to think and they have to figure out what I am going to do. What can I do with these leaves and they have to connect that to what they are doing in their everyday lives and make those connections and build on those connections as they are playing. They might make whatever they ate for dinner last night or they might have to get into a race and have to come up with some rules for a game. Just get into digging in the dirt and exploring and observing and using those observation skills and a lot of other things they decide to do and figure how to do things whenever the obvious isn't right in front of them.

Can you expand on the idea of safety?

I think there are a lot of accidents that happen on a traditional playground, whether it is from the structures themselves or the choices that the children are making to use them. A lot of children get hurt on swings and slides and merry-go-rounds, whereas, there is not a lot that they can get hurt on in our area and they are so busy creating and inventing and observing and getting involved in what they are doing that you don't actually reach that state of boredom once they get into there and get involved in it. As opposed to once they have swung back and forth a few times, they are bored, they are done with that so then they go to the slide, go down the slide three times, ok I am bored with that so they have to move on something else that could get them into trouble or hurt.

Can you expand on the idea of work?

Just compared to a traditional playground we feel like we have to weed all the time and make sure we keep the grass cut, the upkeep.

What is the most popular element and why?

The rocks are the most popular element in our play garden. The children can pick them up, they can smack them, they can smash them, there's just a lot of different things they can use them to do. They are moveable and can become anything, from a baby to a car to a wall in that particular environment. We thought that anything moveable, and actually this sparked a conversation amongst us, we started to think about how we can bring other moveable things out there. So we were talking about, we have a bag of pinecones we are going to take out. We have some leaves we are going to take out. We also have little tiny pebbles we are going to take out and we are going to go down to a quarry and check on some limestone and bigger pieces of rock that we can take out there that are more flat rocks and different shapes and textures. We feel like they love the fact that they can move these things around and they can use them for different things using their imaginations to use them. Even with the whole playground, the rocks are still the most popular element.

What is the least popular element and why?

We thought our least popular thing was the trees because they are still young and so small. They don't provide as much shade we would like, which will eventually get there, but not quite there yet. We believe they also are harder to imagine using as other props because they are not easily maneuvered.

What elements would you recommend and why?

We would go with what we think were the positives. I think the children definitely gain from the garden. I think I would recommend that with out a doubt. And then because we ourselves have learned so much just in answering the questions and observing the children I would recommend small moveable types of materials, things you can add in that they can use in different way, carry with them, and make it a part of what they are doing.

What would you add to the playground and why?

There are several things we are actually interested in adding and we try to add something new every year. A butterfly garden and plants that draw different types of insects. We feel like this will draw more life into our play environment, give us stronger experiences in early sciences and allow us to observe and interact with various forms of living things. We would like to add a small pond as well, but are not sure if our state licenses statues would allow that type standing water. Also we are interested in building a natural climbing area. We want the children to have various levels of ground coverage and the ability to go up or down a sloped area. Another reason for a climbing area is to offer a range of body movements and exercise.

What would you remove from the playground and why?

Our actual playground we wouldn't want to take anything out or change it, but the location is not the greatest, right outside our chain link fence is a parking lot and a shopping plaza. We would love to change that if we could. But as for inside the play garden, there is nothing we would like to take away.

Does it matter that the playground needs time to mature?

I think obviously its going to change over time, even from one month to the next, you can see a change, so obviously its going to be different. We think this is the biggest aspect we are working on right now. Its something that we didn't consider when our play garden began, but now we want to add things gradually and at different maturity levels so we have different stages of growth throughout the course of a year, all the way to ten years and hopefully more than that. Also we are thinking about what we can expect in the future. We have done a lot of talking after reading this question because I don't think this occurred to a lot of us. So we discussed a lot about how we can incorporate things that will mature at different levels and how to get some shade out there right now. How to get a tree that might offer shade ten years from now in a different way than the ones that offers shade for the next five years.

Was that first year interesting?

I think that the newness of it and the fact that they were so involved in helping this come about. I think they enjoyed it, especially the older children. I think they really enjoyed it and really took ownership over the space. But I think we have a lot of new kids that come and kids leave. As new kids come in, I think like I said before, you really have to facilitate their transfer into this environment because a lot of them cannot play this way. So taking them out there and showing them these things, I guess, teaching them in a way, that's it's interesting and letting them see that it's interesting and letting them feel that it's interesting. The more you show them things like, "oh there's a lady bug," so lets talk about beetles. The more you pick the different grass and measure and see which ones bigger and which one smells funny and which ones don't. The more they get into things like that, the more they will be interested in it.

How did you feel that first day?

I think that was a pretty over all idea. Not everyone was real open to this idea. "What are we supposed to do out there, there's nothing there." We had to have a lot of talk and a lot of examples of and a lot of discussions until we got to a point where we were like "Hey this is pretty neat." It was left up to the teachers to pick and choose how they wanted to use the play garden out of their outside time. At first it was just a few minutes, plant some trees and then go to the traditional playground. Then, as a couple of weeks went by, it started to become thirty minutes, then fifty minutes, then ninety minutes. It changes as time goes on and as the teachers' perspectives change. I think as some of the teachers that have had more experience with it go out and model for some of the new teachers and then they start to see "Hey these kids really enjoy this and really get into this." I think as they see that, it changes their perception of the area. I also think it creates excitement in the teacher because once they realize what the space can do and what it offers, they start to get more ideas, they incorporate their lesson plans into their outside time. All the science and math involves being out there instead of being in the classroom. A lot of that stuff, you start to see a change in them as they start to get excited about it.

Is it worth it, that it takes time to mature and how to use it?

Absolutely, without a doubt, definitely worth it.

What activities do you see on the playground?

The boys and girls tend to use things pretty equally. We see a lot more interaction with boys in pretend play and girls in more gross motor type activity, running, and jumping and things like that than we would on a regular playground. We see them getting more involved in activities that you would typically think of as a more male or female activity. We see them sort of crossing those lines and participating with one another. Both sexes enjoy the garden and really get into the gardening. The more they start to do it and see things grow the more they want to be involved with it and help the weeding and things like that. Keep track of it everyday, help watering. Both boys and girls like playing in the sand box. They enjoy the sand and the texture and being able to build with it. They

do a lot of pretend play with our sand. Jumping and running. There is a lot of racing that goes on and both our girls and boys race, they enjoy doing races.

Everyone – the dry river with the rocks and the bridge is one of the favorite areas. All the kids seem to enjoy that. The way that it is, the ground dips down and back up and the dipped in part is covered in big giant rocks and then there are some smaller rocks. So they climb down in there, they will climb under the bridge, across the bridge, they will hang down off the bridge and yell down below. Things like that. There is a lot of pretend play that goes on. They enjoy moving and playing with the rocks, that's one of their favorite things, but everyone seems to play with them equally. There's a lot of time where one child will go off on their own and play somewhere, maybe go over to the garden and work on weeding, because it's something that's a skill we work on throughout our garden time. So a lot of kids will come out and just automatically go to the garden and want to weed on them. We have a pavilion area that has a bench and sometimes they will go up there and sit and watch the birds. There are birds that come and land on the fence. We have a tall grass area that they can go sit in. It's real high grass and they can go and hide behind there or sit in the middle of it, there is a big patch of it. But just like anywhere, whether it's in the classroom or playground or in our play garden, there are always a group that will play together and then individual that will go off and do their own thing.

Is the playground interesting all year long?

I think we can definitely stand to have some changes to incorporate all four of the seasons. Wintertime is not a real big visiting time for our play garden. The kids don't go out there too much. In the spring, we do a lot of plantings and investigating new growth. Summer we continue gardening and spend a lot of time in the play garden. The children do get very hot at times. Occasionally we will incorporate water play. Fall allows for a cool down and more play in the open and un-shaded areas. We also harvest our fruits and/or veggies. Winter is a season when our play garden gets very little use. Our children will go out and play in the snow from time to time, make snow angels or build a snow man. But otherwise, not too much in the winter. I would say it's easier to play on the other playground, just because it's closer to the building. Because the temperatures, once it snows here, it's cold and anything below twenty degrees we are not allowed outside, anything below thirty-two we're not allowed outside for more than ten minutes and so it just gets complicated. For easy, we tend to go to the playground whenever it's really cold.

Do you think your playground promotes a connection to nature?

I think our play garden definitely has a connection to nature. Our children get involved in taking care of the play garden. They grow fruits, they grow vegetables, flowers, plants and they will at time find insects to observe. I think that not everything thing they do is directly connected to nature, but there's definitely some connections there. We can see birds flying by and they land on the fence and things like that, but we don't have a direct connection to animals right now. But we are ordering a couple of bushes and we're going to be in the process of building a butterfly garden and looking for plants that will

draw insects into our play garden. So we are going to try to build a whole corner of it to be something that will draw insects in, something that we can have as an option to observe and see. We also watch the plants change over time, plant the seeds, watch it grown, watch it bear fruit, pick the fruit, watch it go to seed. We watch the grasses change over time. Even our trees are growing steadily; they started out pretty small. Eventually we are going to see them grow quite a bit as the seasons change and time goes on.

Do you see the playground as an educational extension of the classroom?

The play garden provides the perfect environment to tie in all kinds of math and science objectives and make things more fun and obtainable for children. I think at first it's hard to tie it in, it's hard to see how it fits. But as we experiment more with it and we spend me time out there, the more we start to develop our whole lesson plans around that play garden and its gets to the point where we could spend the whole day out there going through the lesson plans and objectives. So we definitely use it as an educational extension.

How is that different from a traditional playground?

Well, I think anything is possible. You could go out and do it on a sidewalk if you had to. But obviously, I think that our play garden definitely promotes that a lot more so than a traditional playground would. There's a lot more to see, a lot more to do, a lot more to be involved in, and that the idea that the children learn how to investigate and they learn how to use their curiosity. They learn how to be more involved in what's around them. That promotes them wanting to learn more about it and I think that makes the environment better for that type of thing.

Site L

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

5.

About how much time do the children spend in the playground per day?

An hour to an hour and a half.

How old is the natural designed playground?

5 years.

What was your previous exposure to naturalized playgrounds?

I have read some books and articles through the National Association of the Education of Young Children. Also I have done some touring at [location omitted] and they have a natural playground, but that was about it. I have never actually taught children on a natural playground.

Do you consider your role as a facilitator or supervisor?

Definitely as a facilitator.

Which better describes your playground: Naturalized or natural?

Well, we thought the difference between, was that natural was what the earth gave us and naturalized is taking something and combining it with what the earth gave us to make it naturalized. So we needed to add some manpower in there to make it naturalized. We thought our playground is mostly natural, but really a combination, but mostly natural. But not completely, because we do have swings, climbers and green houses, we didn't feel like those things were natural. We thought that a natural playground would be made of things that were all natural, naturally occurring. So even though our climbers are made with beautiful wood, it didn't grow there, it wasn't there, we didn't stumble upon it. We really had to put it in.

Inventory Notes

Bamboo – We have bamboo area where the children are encouraged to hide and create paths. It's like trees to the children because it's taller than the children.

Sand Areas – We have several sand areas. We have the large sand area where the children encouraged to play in larger groups. We have smaller sand areas where children are encouraged to play with just maybe one or two other children. Then we also have a sort of an amorphous sand area that is closed in with boulders that in a sort of an almost random fashion where children are encouraged to create their own space for sand.

Digging area – We have logs that surround a digging area. The digging area is different than a sand area. The digging area is designed to be filled with soil and peat so children can have an opportunity to dig in the real ground. Really dig into the earth and find worms and things. Sand is a little different because no matter how far you dig in the sand you will find sand.

Natural Structures – We do a lot of tree forts, shelters, houses, boats, mazes. We take logs and sticks and tie them together, nail them together, whatever we need to do to get them together. We make a teepee, things like boats, trucks, and bridges that never really look like the thing they are suppose to be, but children still imagine. We do a lot of savaging around the campus and we bring back a lot of sticks and logs and things that we can find. Tie it up, nail it up, sometimes we use duck tape. We really look to the children on guidance on that one. What do they want to build and how do we do it and we go out looking for natural objects to build with.

Ideals Notes

Nothing to add.

Environment Questions

Is the playground fun and interesting for children?

We definitely think our playground is fun and interesting, however, we have seen that some children need some teaching about how to interact with a natural playground because they are used to going to the Mc Donald's land play place where they jump in the balls and go down the slide and climb up the ladder, and they know what to do. But being on a natural playground really requires you to do some critical thinking and problem solving and to be curious and to follow your interests and as soon as the children learn that, the possibilities are endless, they really are. But, again, we go back, a little bit of our population doesn't really know how to do that so we have to do some teaching. They look like they might be kind of moseying around for a while, the first couple of weeks of school. But then when we show them all the wonders you can find, the worms you dig, the plants you can grow and they really take off with that.

Positive aspects about the playground?

What we like about the playground is that it doesn't require a lot of man-made materials. We don't need to pull out all of the toys in the world; this is a fun and interesting playground. Really, the playground takes care of itself, and when the children are helping to take care of the playground the curriculum just goes, and goes, and goes. There is so much to learn about and it's always changing. As teachers we never have to try to figure out what to teach the children because it's just there for us. I think that the teachers have to learn how to use the playground too and once the teachers get the hang of it, the children really get the hang of it and it's endless. It's really endless and changing, ever changing. By the season and also by the year. Our playground is totally different in Sept than it is in January and it's totally different in May than it was in February. The structure is all the same, but it's so different the way the weather interacts with the playground and the vegetation grows and the children get the hang of it. And the children build things, so in Sept we had no shelters, but by Oct we have a stick house, by Nov we have a hay house, and by Feb we have a big ditch of snow we called the swimming pool.

Negative aspects about the playground?

Some parents really get it and some parents don't know what to make of it. We have to do a lot of teaching in the beginning of the year to new parents who don't understand the possibilities of the natural playground. They might be looking for the sort of man-made stuff they saw at the childcare center down the street or something like that. Once they learn about it, they are on board. But it does take some extra educating of the families so they know how to support us. Also we have to sometimes teach the children how to play. And things deteriorate because things are changing. We have logs that take care of our digging but they rot and so you have to keep up with it. We have gardens that grow, but you have to tend them. We have a green house, which is working, but you have to have a teacher in there. So there are some extra things you have to worry about.

Can you expand on the parents?

It does come up. Sometimes the parents want to know why we spend so much time on the playground. They understand the value of play in the classroom, but they think playing outside is recess. But we know there is no break from learning, especially for young children. We really think of the outside as our outside classroom, is just as important as the inside classroom. And that does take a little bit of work to get the parents to understand. There's always a couple that maybe don't buy it, they sort of value the indoor curriculum more than the outdoor curriculum.

How does your playground compare to a more traditional one?

We feel that our playground is much better, much better than that. I don't think that any of us would ever go back to a traditional playground if we had to. The children get to learn about plants becoming dormant and then springing back up in the spring, the way that the wood different when its wet than when its dry, really plastic is just plastic and steel is steel. I don't think they would receive the same benefits on a traditional playground as they do on a natural playground in regard to the seasons changing, because

the seasons change all of our materials. So they get to learn about them in a new way and context. We feel like we are nurturing the children by letting them experience the nature of the playground more than if we brought them to a plastic park. We really enjoy the opportunity to have children touch the earth, be with the earth. This sounds a little hokey I know, but, we really think its valuable for children to be connected. We also feel worried about our changing society that is sort of moving away from outdoor free play, outdoor exploration, where our kids go out in the woods and play in the stream and get soaking wet and come home when the lights come on. We know that cant happen any more, but we really think that the children are suffering from that. We do this natural playground because we know its best for children and, by the way, it's sustainable and its better for the earth and that's an added bonus, but our focus is about the children.

What is the most popular element and why?

Water is definitely the most popular. Children are drawn to water and they don't have a lot of opportunities to play in it. They see sinks at home and at school, they are really for washing your hands or washing the dishes. They can play in their bathtubs for days on end. And when they are given the opportunity to control and move the water, it's beyond exciting. They will play with water until the cows come home. They also really like swings. I would encourage anyone who is thinking about a natural playground to make sure you still have swings. I would say the use them about equal. But they have swings in other parts of their world, but where else do you get to play with a water pump. But we do get a lot of use out of the swings.

What is the least popular element and why?

I don't really see any part of the natural elements that they don't play with. I think we were a little bit surprised that they don't dig in the soil as much and we thought they would. We have a digging area that's lined with logs that's really to dig in the soil. They don't do that as much, I think its more function of the size. It's pretty small; it's really for one or two children. They like to dig with a larger group. Everything else is a hit.

What elements would you recommend and why?

You need to have sticks for the children to play with. So many times have I seen children not allowed to play with sticks. You have to have sticks and you have to let them play with it. You can't clean them up in the morning and put them away, put them in the mulch bin. Sticks, moveable parts, where children can move water, move sand, move rocks, move sticks, is critical.

What would you add to the playground and why?

We would add water features for all ages, not just on the five-year-old playground. We feel that's it's very important for everyone.

What would you remove from the playground and why?

I would actually take out my climbing structure because I don't see a lot of use out of that. In the beginning of the year I see plenty of that until we start building things on the playground. Building the bridges and putting logs down and building the shelters. Once

the children become interested in moving the natural objects to build things they care far less about the man-made sort of stable and ridged climber, because it's the same. It's the same every time. But when you build a shelter it's different every time.

Does it matter that the playground needs time to mature?

The initial years are tough, because you have this glorious vision of what your playground will look like and it doesn't really look like that in the beginning; it looks kind of barren. As things grow and you sort of keep tending things and you plant new things then there is a sense of renewal and motivation to keep going with it. But it's a challenge and you have to be prepared for that part.

Your own thoughts?

I wasn't sure what to do with it. I was over whelmed. I was worried that I wouldn't be able to take care of the plants and I wouldn't know enough about the playground to teach the children. What I discovered was that you have to be child like and curious yourself so that you can figure things out with them to teach them, plant things that don't grow, kill things they were growing. Once you can feel comfortable with that, then its ok, but it's a little bumpy at first. It's a little scary. Its' always been an interesting place but it becomes more and more interesting as you become a part of it. I think that's the same for children and teachers.

What activities do you see on the playground?

Their play is very social, but we see individual play for sure, parallel play, cooperative play, larger group play. Some team playing, they are interested in soccer so they do a little bit with that. But we have lots of opportunities to play in large groups and small groups and also those privacy areas. We really feel like children play pretty equally across the board within those realms of play and also by sex.

Bamboo?

They hide. They run around, they make paths. Basically everyone.

Trees?

They use it like a forest because it really does resemble a forest, but it's really only about four trees, but they see that as a forest. They play forest games, hiding, animal games, castles. They do secret hideouts. They use it as shops, homes, post office.

Sand?

A lot of digging, a lot of cooking, a lot of making tracks, animal houses they make.

Landscape?

They love hills. They are learning about inclined planes so they think that is it is so fascinating to put something at the top and watch it come down. They do a lot of experimenting with that. When we have ditches, like in the snow, they like to hide in there. They are fascinated by the hill. We have some very steep parts that they like to climb up and climb down. The mounds, they like to get on top of them, they like to be

up, they like to be bigger taller. There is a lot of water play. They really move water all around the playground to create different effects. They make pools, they make ponds, they water plants, they do cooking activities such as soup, they make streams and kind of flood the place. They float things in the water, they see how much water it takes to move the sand. Because they figured that if I put a little water it goes in, if I put a lot of water it stays on top, if I put a lot a lot of water, it makes the sand move away. They do a lot of experimenting with that.

Logs

Some people sit on the log and it's a car, sometimes it's a plane, sometimes it's a train. Sometimes they hide behind so no one can see them. Sometimes they walk across it like a bridge, it's a meeting place, it's a dinner table.

Is the playground interesting all year long?

Yes, it's fun and interesting throughout the seasons. When we have snow, it's a whole different thing. They can slide, build forts, just lie in it. But one of the problems is when it's too cold our water gets shut off. We really only have access to that water for about half of the year and that's a problem, which we understand, plumbing, but it's hard for the children to understand that. We get a lot of ice on the playground because we can't use salt because that would hurt the vegetation, we can only use sand, so that's a challenge. In the fall, children do a lot of raking, gathering leaves, moving leaves from place to place using apple bushel baskets. They do a lot of exploring of the playground because the herbs are still growing and the flowers are still growing. And then toward the end of the fall they can pick the flowers, they can pick the herbs. We send them home, we do cooking with them. The leaves start to disappear and we start thinking about snow and we start predicating about what will happen in the snow. Then the ground freezes and things are harder, so digging is different, and we have to use sharper tools and use more strength to get through the sand and the soil. Then the snow comes and it's so different, so the trikes go in and out come the sleds. We also take care of our bird feeders in the winter so the birds can continue to eat. We do a lot of snow shoveling. We ask that the maintenance staff not shovel our entire playground. They give us a path for teachers so children have a lot of opportunities to move snow. They can still swing, but that's a little different experience because there's a foot of snow under them and so it seems like the swings are smaller to the children. Then with spring, we get mud, glorious mud. We can start planting our things and look back at photographs of our playground in the fall and we wonder "Will it look the same or different, will we have the same flowers." We plant carrots, tomatoes, and different vegetables in the green house. We get ready to plant those in the garden come spring. And then, we're not in session during the summer, but families sign up to come and take care of the playground during the summer. So they will choose a weekend of time and come water the garden, tend the garden, weed the garden, harvest the vegetables, water the bamboo, make sure the grass is watered. So children get to see it all year long.

Do you think your playground promotes a connection to nature?

Definitely, children are encouraged to touch everything. Taste things where it is appropriate. We have a lot of things that children can taste, touch. We have lots of textures, dig things up and replant them somewhere else. Everything that the children can see they should touch, they should interact with, experiment with, they should come up with some idea. We planted pinecones before to see if a pine tree will grow. Because we want children to really interact with the stuff of the world. We have logs that are five pounds each and they are encouraged to move them around the playground and make things. We had a campsite in the fall. It was a bunch of rocks in a circle and a lot of sticks in the middle. So everything the children see they are encouraged to play with. We catch insects and we watch them, we observe them. If we ever find dead ones, we mount them and put them in our children's museum. Well, this year we found a dead mouse and that was really exciting, maybe a hawk dropped it by. So we put it in a jar and we observed it, watched it decompose. Just this week, we had a squirrel get into our green house and chomped on our flowers. We brought the sunflowers in the classroom and put that in the museum and we talked about who would do that and why they would do such a thing. We discovered some poop, so who left the poop for us. Definitely we are interacting with the animals. We also put pumpkins out in the fall and discovered that a squirrel ate part of our pumpkin. He got into the compost bin and chewed on the compost bin and really made quite a mark. We don't really get to see them because they are pretty quick, but we see traces and it's often a mystery, sometimes the children think lions and horses got on the playground. We do figure it out in the end. The children plant in the garden, they plant the herbs, they tend the herbs, they pick the herbs and we package them and wash them and send them home with recipes. We also make the recipes in the class, of course. We make things like mint lemonade, or put chives in a sour cream chip and dip cucumber in there so children can start to learn the concept of growing and eating your own food. We also do that with the vegetable garden, which is a challenge because the harvesting happens in the summer.

Do you see the playground as an educational extension of the classroom?

Yes, we believe that the outside play space is as important as the inside play space and some would argue even more important. We value both equally. There are a lot of concepts that we get to investigate outside. Last year we grew butterflies in the butterfly net in the greenhouse and then we let them go outside. That was just fascinating to see something that we sort of created and took care of out in the world and the butterflies were playing on our playground because they were landing on trees, bushes, and on the grass. Children learn in concrete ways and there is nothing really more concrete than interacting with the earth.

Can you expand on learning outside?

Well, they can learn everything out there. They learn social skills out there. They learn by nurturing things on the playground, they have to take care of things on the playground. You can't stomp on a tulip because it will hurt it and it won't grow anymore and how do we feel about that. They learn emotional regulation skills by being on our playground. If something feels too overwhelming to you, like the big superhero play that's happening

on the climber, you should find a different place to play. Maybe the herb garden, maybe you would like to pick some flowers, maybe you want to go swing. So it teaches that environments effect their emotional regulation. All those cognitive and academic skills can be learned on the playground. Reading when we are planting seeds and teachers are looking at directions, and we are reading books about what can grow. We are writing in journals about what's growing and how it's growing or keeping the charts, looking at math skills. We're keeping charts about what's growing well, what's not growing well. How do we make this grow better? We're doing predictions, scientific observations. Definitely, the physical development, lots of fine motor opportunities, lots of gross motor and balance opportunities. We are teaching them about risk taking and about safety because they can climb up a boulder and they have to decide if that feels good to them. We talk a lot about, "It looks like you are little shaky up there, do you feel stable enough, yes or no." They learn about physics through their building of things on the playground and "Why can't we keep this stick up, we need to stabilize it, we need to dig a hole". Why can't we move this bridge, why *can* we move this bridge, how heavy can this rock be before you cant move it anymore. How deep do you have to put this hole, every hole is different for different seeds. Beans you can put in at half an inch, but carrots need to be just barely on the ground because they need their light. I can go for days on what the children are learning out there.

Anything else?

The children always do look for a physical challenge, so you need to make sure you have that element. Like if you have sticks and rocks and logs and things, they have to provide not just an opportunity to move things around and be in control of your environment, but things that are challenging. We had some problems. We had someone design the playground and then someone else who implemented the design. There was a discrepancy with the landscape architecture. To make a long story short, the landscape architect who did the work, misjudge his measurements by twenty percent, which is huge. So we have this sort of steepness mistake, our ground isn't as level in some places as we had anticipated, like the grass area. It's not steep, but there's definitely an incline and balls roll away. The steepness is more than we wanted. So I think when you are designing it and then implementing it, there has to be a lot of really good communication and oversight to make sure its happening the way you want it to. I think this is sort of a new thing that people are doing, so it's not like pour a slab, put a swing on, put a wood or plastic climber on. There are a lot of people who need to be part of the process, including people who are experts with the trees and the vegetation, and licensing and regulation for children's safety, teachers, parents, the architects. It takes a lot of collaboration to make it happen and to make it happen right.

Site M

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

They're 6.

About how much time do the children spend in the playground per day?

20 minutes.

How old is the natural designed playground?

2 years.

What was your previous exposure to naturalized playgrounds?

No, the only thing that I could say that I was aware of was when they were talking about doing the naturalized playground they showed us a lot of plans and the kids can choose what plan they wanted. That's the only kind of information I got from people constructing it.

Do you consider your role as a facilitator or supervisor?

A little bit of both, it depends on the child. Some kids are very informed and know exactly what to do and they just go and do it and I am just really a supervisor then. Other times kids need, at the beginning of the year in particular, need to be shown what to do. Which is the whole idea of having the natural playground because kids are kind of forgetting how to just play naturally. Not knowing how to fall or roll down a hill or things like that. The beginning of the year more of a facilitator and as the year goes on a supervisor.

Which better describes your playground: Naturalized or natural?

I would think naturalized, because it does have the structures that were already there and it's kind of built around them as well. But I don't, it's because a lot of the playground is structured around this huge hill we have that's completely natural. So I am not really sure where that would fall. I guess a natural playground would have more things

stemming from nature, it wouldn't have as many physical structures, like swing and slides and things like that that are free standing and not built into some part of a tree or something.

Inventory Notes

Brick maze – It's made up of bricks of different colors so they can walk along the maze itself. Its flat, so they can just walk along and in the bricks they have little dedications to different people who helped play for the playground. People sponsored the bricks. It's like its own cement surface and has the bricks for kids to walk on.

Ideals Notes

Nothing to add.

Environment Questions

Is the playground fun and interesting for children?

I definitely think its fun and interesting and basically I know because they are not coming up to me and saying that they are bored and they don't know what to do. They seem to be able to find something easily and I don't have them coming up to me having conflicts with other children as much because they are not bored and usually boredom breeds conflict. So, I think it is fun and interesting for them. They are always like "I can't wait to get out there." We have the structures that were already there prior to making it naturalized and some kids go there first then maybe they will go and roll down the hill next. So they are different, they have choices. Whether they want to have a nice structured thing to work on, some of them, that's their goal, they want to learn how to do the monkey bars so they will go do that. Some of the kids are just happy to roll down the hill and to feel that feeling and to run down the hill too. You should see that, them running down the hill. That was something I didn't see before it became natural, even though the hill was still there, it wasn't as appealing to them. And the climbing on the rocks, at first it made every teacher just bite their nails, so many kids are going to fall and get hurt, and they don't, they just enjoy it, they do so well with it. They are always busy. Even in the dramatic play areas, kids of each age will put on plays for each other.

Positive aspects about the playground?

Well, I love that there is a lot of big open field space. There's not any lack of real estate for kids to fight over. Kids that just want to go and throw a ball in a little area can find an area to do that. The kids that run around and play tag can do it in another area and not interfere with the other kids. And kids that just want to just roll or run down the hill or slide down the gigantic slide that's built into the hill. We have two levels, a top level and a bottom level. The top level is obviously at the top of the hill and that's where the sand and water tables are, and the sand area. At the bottom of the hill is where we have all of the structures. So you have kids going back forth from each one. So, lots of choices.

Negative aspects about the playground?

I don't really find any negative aspects. Some teachers find it hard to have children not within sight because they go behind trees or in hidden areas. But I think its fine. I like to go and look every once in awhile. Some teachers like to have that supervision and it kind of takes a little bit of that supervision away because the kids do want to find their little hiding spaces. I think the positives way out weight the negatives. There are very few negatives and I don't even think the negatives are negatives. They just make the teachers' job a little bit more challenging, to find the kids who are kind of hiding and making sure they are doing something appropriate. But most of the time they are, I would say nine out of ten, they are just exploring, they are digging, they are building. I think it's a positive experience all around.

How does your playground compare to a more traditional one?

Well, we have it built in to our playground, so that's what interesting about this. You get the best of both worlds. As I said, the kids have choices, they can go to the traditional playground, which is right there, or they can expand out from it and use the naturalized part of the playground. I think at first I was wondering if should even keep the structures, but I am kind of glad we did. The kids get different benefits from both.

Can you expand on the idea of benefits?

Well, the benefits of the natural playground, kids just didn't know how to use their imagination and they use their imagination more with the natural playground. They also just didn't know how to run and fall, seriously, they would fall all the time and they would come up crying and now they don't. They fall, they get back up and they keep going. It was pretty amazing to see and I think that it's just great for their gross motor skills to have that freedom to just explore and see where they are in space. And when they do the rolling and how it bundles their nerves up and kind of calms them down, just rolling down the hill. The balance that is created from just climbing the rocks and things like that. I thought there was going to be a lot more injuries than there are, but there really aren't. Most of the injuries come from the structured apparatus, where they will fall off of things and fall wrong. But I like to have the structures too because there's a lot of kids that have these goals, "I want to learn how to do the monkey bars." And they can't do it at the beginning of the year and then they can do it by the end of the year. They have built up that muscle coordination and they are very proud of themselves. So I see benefits of both. Swings are great and use both different types of muscles. I see benefits to both and I like having both there. That's how we grew up, that's not how they are growing up. They're more structured in their pace throughout the day, so give them this free form, to do what every they want, they don't know how to handle that. It doesn't take long though, and then they take it further than we show them. They use their imagination a lot more in the natural playground. I think because its not so structured, they can build games around it. Because there is a naturalized area there's not as much conflict because if the structures are busy, have a lot of people inline, they just go and play on the hill. And viscera, there is always somewhere else for them to go.

What is the most popular element and why?

Oh, it's definitely the hill because they will just roll down the hill. I don't know why they love that so much. Actually there is a physical component to it, like I said, it bundles their nerves and the appropriate factors and it's good for that. I think they love to get dizzy. They love to roll down it and they may not have wanted to do that in the beginning and you show them how and they don't stop, they just love it. They probably don't have a hill of this size in their back yard, it's pretty big. I think actually the biggest draw is the slide that was built into the hill, so it's kind of half and half. You couldn't have that huge slide, it's scary for me to go down it, it's huge, you wouldn't have that without the hill. There would be safety concerns. You couldn't build a slide that big.

What is the least popular element and why?

Well, I see them on everything. I really don't see anything not being used at all. Maybe the younger kids and the basketball courts. They pretty much use everything.

What elements would you recommend and why?

If you can definitely have the hill, we were lucky to have that already there, but if you can make a hill that would be great. The sand area, that never tires. You have to have a sand area, there are kids who just love to play in the sand. I like the balancing log thing. I am surprised how popular it is. I think because it's a challenge to the kids and after it's not a challenge anymore, they just skip along it. I don't know why it's so popular cause it surprised me. I didn't think anyone would play on that at all tell you the truth. I was really surprised that they can get on it at that young age. After they develop those core muscles, then they are able to hop on one foot with it, just hop back and forth and faster. I can't pin exactly why, I guess I could interview them and ask them. It's just fun to see them do it. Just having open areas, for the kids to run around. There doesn't seem to ever be enough real estate when you have a lot of kids out there. And have a lot of space so they can find different areas so they are not running into each other's games, so they can just play a little more cooperatively.

What would you add to the playground and why?

The garden. Just so they can learn the whole process of growing and seeing things grow and taking care of it. Learning their responsibility of taking care of it. Kids are innately real sensitive, so I think that would be a big draw.

What would you remove from the playground and why?

I don't see anything I would like to take out. It all works so well. I don't see anything that's a problem. Because the natural playground was built around the other stuff it makes it more acceptable.

Does it matter that the playground needs time to mature?

I definitely think it's worth it. Now there was a big opposition to the beginning. "Who's going to take care of this," "Who's going to make sure the grass grows," and things like that. So I think a plan has to be put in place of who is actually going to take care of it and plant new grass. We tried to have more flowers, but there's not enough watering for

more flowers, so some flowers never made it. So there's definitely a component of who's going to take care of it and we do have sprinklers to help out with the grass. It does take time for the trees to mature because they small now, but you can see how it's going to be beautiful when the trees mature and there's more shade and just being a little more picturesque. But that was a big thing, who's going to take care of it.

First year?

Absolutely, they went screaming out there. They had seen it being built from their window for half a year, so they couldn't wait to get on it and they had lots of fun with it. And they still do.

Your feelings?

It was new, but I was totally for it. I knew kids need something out there, something more than what they had because there was just too much bickering and complaining because they were all fighting to get on the same structures and there's just not enough room. Also we have a pretty big school with various age groups and we had to take turns; one age group would play on the structures while the other age group would have to go on to the hardtop area, just a boring hardtop nothing else to do. Now it's big enough and spacious enough that we can put multi-age level groups on there at the same time so no one has to alternate. You just go out on the natural playground everyday.

Did you have to learn how to use it?

I had to learn how to let go of some of the fear. I was afraid the kids were going to get hurt and it didn't take long to realize that they were not getting hurt. We would talk to each other and we were shocked that they were not falling on these rocks and these balancing logs and not falling off of them. We were amazed. First we had to supervise the big slide, then you don't have to supervise that anymore, I mean you supervise it, but not as diligently. You would see them rolling down the hill and we would see them rolling toward a rock and you're like "Oh no!" but somehow they knew to stop. So it worked out well, and any injuries there are they are minor and they are nothing that wouldn't happen anywhere else with kids. I think because our school was part of the original plan for the playground so they got the faculty together and got the designers actually to talk to the teachers so they kind of knew. So the teachers were educated before hand, so I think that helped a lot. Even though we wound up going with different builders. I don't think it matters that it takes time to mature because its been used since day one and its been successful since day one. Everyone who was worried about who's going to take care about it and is it going to fall into disrepair, those concerns you don't even hear any more. It seems to be taking care of its self pretty much, or who ever is taking care it is going such a great job no one notices. It's been a grand success and I would recommend it to anybody.

What activities do you see on the playground?

For the hill, you will see them running down screaming, it's a pretty steep hill. You'll see them just getting down and rolling on their side down and just laughing. They do incorporate that into some kind of imaginative play, sometimes its just roll down the hill

to roll down the hill. They use their imagination with it all the time. Especially when they are going back behind trees and things like that.

Boy specific play?

The boys will do the super hero thing for sure. They will also do spy games. They will do the traditional tag games because there's a lot more room to run around. Hide and go seek, all that stuff you see going on. I really don't see much difference between boy and girl play as far as imagination is going. Even the girls like to play the super hero, even they like to play the hide and go seek and things like that. So I don't see that much difference.

Rocks?

They use the rocks to climb up the hill, cause there are rocks scattered throughout the hill on the side, so they can roll down without hitting the rocks, but the rocks are scatter more towards the top. They will just use them to climb up and then sometimes they will hop from rock to rock, which makes a teachers heart go through their throat, but they do it with out any problem. Sometimes they will use it as hiding, they will crouch down.

What about solitary play?

Absolutely. I think that's the best part of it being a naturalized playground, because it allows a lot for that. For you to just go off and just sit by yourself somewhere. There are not that many different activities, other than the rolling down the hill because they didn't do that before. They still get the same running and tag games, and super heroes, and cops, and robbers. You still get all that stuff.

Is the playground interesting all year long?

I do think it's fun. Unfortunately, when we get too much snow it gets closed down. There was just too much snow this year, they would just sink, we wouldn't find them. The hill itself becomes a slide. Kids go up and down the same area of the hill and create their own slide with the snow. The wintertime is completely different than other times of the year. You have almost all of the kids sliding down the hill in the winter and not really going on the structures or doing anything like that. Some do, but most of them it's just new, it's a novel thing so they use that, in spring and fall. In the summer, I am not really here. In the spring and fall it doesn't change too much, maybe with the tree climbing. The traditional playground basically would be closed down in winter. Once the snow comes, there wasn't much to do. What this allows for is another vehicle for fun, that hill is the best thing to do is slide down it on your belly or whatever. I think the natural playground allows a lot for that. I also think that it allows for, when it's really hot, that you have all those trees to provide the coolness. Before those trees were put in, there was nothing, and I imagine as they grow even more there will be even more areas that provide shade for the kids. We do have another area for play, its just asphalt. It's called the hard top, and basically we don't even use it anymore. We just use the natural playground. We used to switch back and forth, but now we just use the natural playground for all kids. Oh, they can also start looking for things in the spring, they can look for certain growths in the spring that you wouldn't really find.

Do you think your playground promotes a connection to nature?

Oh it absolutely does because it's around you. If you play in nature, you're going to observe it more, whereas if you are on swing or monkey bars, you're not going to sit there and observe the nature as much. Kids will come over and have different things they have pulled out of the ground to show you, or different rocks to show you because they are interacting with it because they playing with it and on it. Whereas, before I think they would just be on the structures and not even paying attention to what was around them. We see some animals, not that many, the birds and all. But I just, another thing is the differences in the trees within the different seasons. That's one thing we point out and then they notice on their own. How the trees are different between fall, winter, and spring. And they notice different buds that are starting to come up now. I guess if we did more things in our outdoor amphitheater, I think the older grades use it more than the younger ones.

Do you see the playground as an educational extension of the classroom?

I do, I think it could be used more. If we had a garden or if we had some kind of a pond or running water type structures in it. But I still feel that it can be used for teaching. As I said, just doing the simple tree observations helps that a lot. Kids go and sketch different times of the year, how the trees have changed. Just getting them to sit down and compare pictures at the end of the year. This is what it looked like in the fall, winter, and now this is what it looks like now in the spring. Actually we would go outside a lot when its nice out to read, to just sit underneath the tree and read and is just a nice way to show kids how to enjoy a book rather than in a classroom and getting tested over what ever you are reading. Just showing them to relaxing nature of a good book.

Anything else?

I love our natural playground and I think everyone should have one.

Site N

You have read the letter of information provided and understand what the study entails?

-Yes

You are aware that this interview is being recorded in order to make transcriptions?

-Yes

You believe that your experiences involving children and the playground make you the best-qualified person to answer the questions that you have been provided in a detailed manner?

-Yes

Background Questions

What are the ages of children you supervise?

5.

About how much time do the children spend in the playground per day?

An hour and a half.

How old is the natural designed playground?

13 years.

What was your previous exposure to naturalized playgrounds?

We received many trainings by the Natural Learning Initiative, we been part of studies. They have given us books and articles so that we can research how to utilize the space and how to make it most beneficial for the children. And of course I have lived in it, I have eight years of experience in this playground here. I've actually provided trainings on it.

Do you consider your role as a facilitator or supervisor?

We call ourselves co-researchers, so I guess that would be more of your facilitator, but we take it a step further, we are not just facilitating learning but we are a part of it. So the teachers are just as active on the playground as the children are.

Which better describes your playground: Naturalized or natural?

The reason I am going to say that it is naturalized is because every single tree that is here, we purposely planted. But if you didn't know that history, you would think that we are just using the trees that are in existence. We also have taken trees out and added new trees in depending on what their maintenance was like. Or what the needs of the children were, if the children were all respecting it and it was not leading to something good, or if children were climbing on it and getting hurt then we would take that tree out. So that's why I would say naturalized. And we also have built things. We have an eatable

classroom, which is what we call our garden. And we have an outdoor classroom, that is a structure with a weatherproof canvas with no walls and just benches and then a big table in the middle and the children are able to do what ever. If it's rainy day the children are able to be out there and enjoy their outside elements.

Inventory Notes

We have birdfeeders. The children will actually hang corn on the cob outside their windows to look at the squirrels and because we are in the middle of the woods we often see snakes and frogs. The snakes we see are black racers and we have some brave teachers that are not hesitant about them at all. I am not one of them.

Ideals Notes

Nothing to add.

Environment Questions

Is the playground fun and interesting for children?

I do because it's very open ended. It doesn't have just the plastic climbing structures. The children will go around the bunch of trees and one day it might be a dinner and then the next day it might be a gas station and then the next day they might not play with that patch of trees at all. It seems like it's a different playground everyday for the children, being as I have been here for eight years. I have seen different groups of children use the spaces in different ways. We might have one group who really use the stage and it becomes a performance and they hold a wedding and then the next group won't really use it. They will build on it but not use it as a stage. So it's really open ended and it really allows the children to be imaginative and explore and express their ideas in their own way.

Positive aspects about the playground?

It has a backyard feel. When I am touring new families, so often I hear "Oh my gosh, this reminds me of my backyard when I was a kid." It's that backyard feel where they are able to watch trees grow and shed bark and have that natural feel to it. It was also created by children, which I think was really great. It was very empowering for them. Also that there are so many edible things on the playground so they are really able to watch and see the circle of life. We go on nature walks very often and they get to see after a windstorm, a big tree has fallen down and then they get to watch the erosion of that. It's just real life learning that because of the area we are in, there are so many housing developments and communities that are going up now where everyone has the perfect fifty by fifty foot yard and that's just not realistic, that's not what a typical outdoor environment is and we can provide that here.

Negative aspects about the playground?

The supervision seems to be a challenge because there are so many nooks and crannies that the kids can go into. Sometimes it's hard to be involved in an activity and still supervise all of the kids. There is also a lot of uneven ground because we have the

woodchips and natural dirt. There's roots from trees that are tripping hazards. The children eventually learn to go over that, but it's a learning process that could possibly be dangerous. The other thing is that because we are in the woods we have a lot of mosquitoes and bees and hornets, ticks and stuff like that. Our families are really understanding and it's something they wouldn't trade for the world, but it is something I would have to mention as a negative aspect.

How does your playground compare to a more traditional one?

I feel like you can't get bored on our playground. Where a more traditional playground the slide is a slide and it's discouraged to be used any other way. You often hear teachers say, "We only down the slide, not up the slide." Or they don't let them put mud down the slide, where we have the dry riverbed, if they want to pour mud down the dry riverbed they certainly can. Just very open-ended playground, there is no necessary purpose for the materials that are there. It allows them to be on a different playground everyday. I guess I feel like ours is better than a traditional playground. Part of it is the attitude of the children. The children don't treat it as a recess, they treat it as extended learning. You can really see how the cogs of their brains are turning as they are looking at the leaves changing when they go out on their playground and all of a sudden the leaves are on the ground. So we have four different seasons and it's like giving them four different playgrounds because we have so many trees. Where a traditional playground has no trees, so they don't see that or see icicles hanging from the trees. It's neat when it snows here and it looks like a winter wonder land walking out there and the children get to shake a branch and watch the snow fall down or feel the rain fall on them. So I feel that is very encouraging and promotes their learning.

What is the most popular element and why?

I would probably say our mud bog is the most interesting thing because it's not there everyday and there are so many science experiments the kids can do. When they step in and then when they stomp in it they see how much further the water goes and then we bring rulers out and they get to compare how big the puddle is vs. the last time it rained. Plus they are able to make mud pies and pretend they are cupcakes and celebrate birthdays. It just covers so many different domains of education from dramatic play to science to math to building to cause and effect. It's different every time so the kids never know what to expect. They start to hypothesize in the classroom when it starts to rain. If it's a light drizzle they will ask, "Do you think that there's going to be enough rain?" You know, to create a mud bog. So I feel like that's our most popular element, plus kids just like getting dirty. I mean, it's something that they are discouraged and we encourage it here.

What is the least popular element and why?

I would say our train is the least popular because it's clearly a train and it can only be one thing. The children kind of get bored with it easily. Preschoolers very rarely do unless we bring something out specifically out for the train like train whistles or something like that. I would probably say anything of our climbing structures the kids just get bored with, so if we are outside for forty five minutes they might spend the first five or ten

minutes on them and then they are asking to go on a nature walk or if today is one of the days we are going to go look at the pond. It's also the most expensive element on the playground. The climbing structures are thousands and thousands and the state requires that you have something so many feet above their head so it's a climbing structure and so many feet of fall zones that we have to have for it. It's just funny what they mandate that we have, the children like the least and it's the most expensive.

What elements would you recommend and why?

I would definitely say the mud bog because that is very cheap to install and it's definitely most beneficial because they kids can do float and sink activities with leaves and rocks and its really easy to maintain at very little cost and it's a very popular item. Second would be anything edible, trees and stuff like that, fruit trees, or the gardens, something where the children are responsible for maintaining it and learning how to care for it. I think those are the two things I would have to really recommend, the mud bog and edible elements.

What would you add to the playground and why?

I would like to add a way to drain the mud bog, because when you have four days of rain the water gets very stagnant and you get a lot a misquotes so I would like a way to drain it.

What would you remove from the playground and why?

I would like to take out the fake equipment. The climbing structures and stuff like that. We are not able to here, but that would be it. I would rather see a climbing structure that was more natural like a cave or something like that. It doesn't seem like it allows the children to be free. I would much rather see a tree built with a ladder where the kids could climb up and down it and have that be a climbing structure. Vs a train, which is a train.

Does it matter that the playground needs time to mature?

We were fortunate enough that we didn't have to buy saplings, so we bought some pretty mature trees. So for us it was better that first year because we have so much over growth now that the landscaping is more expensive now. For them to trim a little bush it might cost two hundred dollars vs. them to trim the big trees we have now it's three hundred a month. So coming from financial, I don't really think it gets better with age. But for the children's aspect, they loved watching the grass grow and getting to measure it. So I feel like as long as you involve children in that process they are going to enjoy that process. We actually had our ten year anniversary of the playground where we invited children that were part of the original design and make comments on the trees and just how far they have seen it grow. So even for children that have left our center it was still a learning opportunity for them.

Interesting for day one?

I do. But we had more mature trees.

You as a teacher?

You are always teaching the children to respect the trees and the trunks and not to pull the leaves and the branches off. On day one, as a teacher, I remember thinking “I am going to lose someone on this playground and it’s so big and there are so many hiding spots.” It took me a while to learn where each child likes to go and hide and where I would most commonly find them or who with. After I was on the playground for a couple of weeks it didn’t seem as big because I knew the land a little bit better.

Is it worth it?

Absolutely.

What activities do you see on the playground?

We don’t have a playground that is more where the boys are, this is more where the girls are because the boys clop around in the heels just as much as the girls do. They play on it differently everyday. We definitely have a bike path where the kids are able to use those large motor skills. They are able to run on it, they are able to bike on it. They are able to push each other on the bike and learn how to pedal. We have wagons for them to put rocks or each other in. They are able to help harvest their gardens and they are encouraged to take them home and bridge that gap between school and home. Maybe bring rosemary home and cook it with chicken. Or find a way for them to involve school at home. We also encourage our teachers to do that as well. We will have a yard or bake sale and we made apple turnovers and the proceeds go towards the local library. I don’t think anything I say can justify how wonderful our playground is as a learning environment.

Trees?

They do. We have some fig trees and their branches start separating really low and so the children will put a cutting board on the inside of it and pretend its an oven or a baby bed. As well as climbing them. They are able to hang streamers to see the wind.

Dry riverbed?

Sometimes they just crawl up and down it. Sometimes they take buckets of water and pour it down. Sometimes they will use it as just a balance beam type of thing. They can actually take the rocks out and there is a cement indentation and they will use that as a puzzle and try to put the rocks back where they belong.

Is the playground interesting all year long?

Our landscapers has purposely placed perennials that will show up at different times. We always have a burst of color somewhere, or certain times we will have morning glories coming out. What’s neat about it, we have so many trees that it’s never really overly hot and the children are able to do a temperature study between in the shade and in the sun. That’s something that happens often in the summer, so they will have a thermometer and put it in the sun and they will have a thermometer and place it in the shade and they will do a chart to see how fast it went up vs. the shade, so it becomes a little science experiment. And in the fall and spring they actually get to see that growth in the spring

and see these leaves. The trees shedding leaves in the fall. Because we have so much mulch and its very loose ground, our ground actually freezes in the winter and they get to march on it and crunch it, which is something that only happens in the winter.

Do you think your playground promotes a connection to nature?

We definitely do. We grow fruit for them to taste. We grow flowers for them to smell, herbs to cook with. We have frogs that they can actually go to the pond and watch them metamorphosis from a tadpole into a frog. They are able to document the changes over years so they can see the changes in the seasons. But they are definitely connected to it.

Do you see the playground as an educational extension of the classroom?

When we tour parents those are the exact words we use, that it is an extension of the classroom. The learning doesn't stop. We always have clipboards available for the children so that if they see something, they can sketch it or we at least have a camera outside for them to use so if they see a bug they have never seen before or something they just want to remember, like we have cocoons all over a fruit tree and the children always want to take a picture of that and document that. It's great because they are able to go back to that in a couple of months and go, "Do you remember that?" We are always encouraging them to extend their lesson plans outside. Our teachers do a plan for indoors as well as outdoors so that there is a plan for their outside time and aren't just encouraged to run free.