

Virginia's Foundation Blocks for Early Learning:
Interpretation and Implementation by Practitioners

Kimberly Jane Norris

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Mary Alice Barksdale, Chair
Victoria R. Fu
Daisy L. Stewart
Terry C. Witta

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Abstract

Expectations for accountability have led policy makers to create standards designed to educate children to their highest potential. In addition to k-12 standards, the Commonwealth of Virginia created *Foundation Blocks* for a state-sponsored preschool program called the Virginia Preschool Initiative.

This study included assessment of *Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds* as they relate to theories of Piaget, Vygotsky, and Rogoff. This assessment included play, scaffolded instruction, emergent literacy, and spatial reasoning. The *Foundation Blocks* were examined to determine how they were interpreted and implemented by preschool classroom teachers. Using a case-study format, four volunteer teachers participated in three days of classroom observations, be interviewed, and complete a survey.

Evidence showed that the standards were theoretically based, and the participating teachers' pedagogy included play, emergent literacy, and spatial reasoning. Scaffolded instruction was not observed. There were concerns about teachers' low expectations and low-level questioning techniques.

Dedication

This dissertation is dedicated to the memory of my mother, Ann Neff Norris, a highly experienced educator - both in the classroom and as a principal/instructional leader of the school. Her encouragement, pride, and love gave me the courage, determination, and will to reach my highest educational potential. She passed her belief in God on to me, and this foundation has carried me through many tough and challenging times. One of my goals was the completion of my doctoral degree, which required that I overcome many professional and financial obstacles. My mother valued education and believed that education would allow a person “to go places.” I look forward to my future and what my educational accomplishments will provide, and wish that she could have lived long enough to share this achievement with me.

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Chapter 1

Introduction

How can society capitalize on children’s intelligence, behavior, social skills, and relationships with both adults and peers, as well as cultivate their cognitive development to the highest level possible? How can these riches be sustained through the children’s educational years into adulthood in order to create life-long learners who are productive and socially adept in our extremely diverse society? Many advocates and researchers would answer these questions with one word: preschool.

The Committee for Economic Development has called for all children to experience a “high quality preschool” (2006, p. 4). According to the results of this report, “convincing evidence of the long-term benefits of preschool” (Committee for Economic Development, 2006, p. 3) include “better educational, employment, criminal and social outcomes” (Committee for Economic Development, 2006, p. 3). Additionally, a *Report on Preschool Programs* stated that, “preschool is a national priority” (Businesses Seek Pre-K Expansion, 2009, para. 5). How can three and four-year-old children possibly impact all of the previously mentioned benefits?

Preschool is designed to take advantage of the highly accelerated, almost “sponge-like” development that occurs during the first five years of a child’s life. According to the U.S. Department of Education (2000), “The first five years of life are a time of enormous growth of linguistic, cognitive, social and motor competence” (p. 1). The Obama Administration’s Early Childhood Initiative, as mentioned on the White House website, noted that the “years before a child reaches kindergarten are among the most critical in his or her life to influence learning” (White House Education, 2010). The extent of this growth impacts children’s social, cognitive, language, and emotional development, which in turn affects future education, relationships, and

contributions to society. Therefore, the positive development and growth of a three or four-year-old child has extended beyond the responsibilities of the children's parents and early childhood educators, as previously seen in the past, to now include responsibilities of state and federal governing bodies that now impose mandates. According to the White House Education website, President Obama urges "states to impose high standards across all publicly funded early learning settings, [and] develop new programs to improve opportunities and outcomes..." (White House Education, 2010). "Whether it be leaping, resisting, or being gently shoved, the field of early childhood education continues moving into the age of accountability" (Elliott & Olliff, 2008, p. 551).

Early childhood education has recently moved into the era of education through standards-based accountability. The notion of standards, generated in the kindergarten-Grade 12 system and now extended to the pre-kindergarten care and education context, highlights the systemic nature of education. When education is seen as a system guided by explicitly articulated and skillfully aligned standards, it is hoped that all children will be provided with the experiences and knowledge necessary to succeed in a very complex world (Graue, 2008, p. 444).

This is true in the Commonwealth of Virginia, where standards have been created for four-year-old children in Virginia Preschool Initiative (VPI) classrooms throughout the state. These standards are known as *Virginia's Foundation Blocks for Early Learning: Standards for Literacy, Mathematics, Science, and History and Social Science*. In this dissertation, these standards have been considered from political, theoretical, academic, and developmental perspectives.

History

Political - No Child Left Behind

Early in the creation of our country, the settlers and the founding fathers recognized the importance of education as one of the vital functions of our government and determined that education should be provided for all citizens. “Education for every class and rank of people down to the lowest and the poorest” (U.S. Department of Education, 2004, p. i) was a plea of John Adams. Historically, state and local governments facilitated residents’ education. More recently, “Recognizing the universal importance of education, the federal government assumed a larger role in financing public schools with the passing of the *Elementary and Secondary Education Act (ESEA)* in 1965” (U.S. Department of Education, 2004, p. ii). Over the years, ESEA has continued to provide financial assistance to the states through repeated reauthorizations. However, in 2001, the reauthorization of ESEA included the *No Child Left Behind Act*, which, according to Rod Paige, Secretary of U.S. Department of Education, “asks the states to set standards for student performance and teacher quality. The law establishes accountability for results and improves the inclusiveness and fairness of American education” (U.S. Department of Education, 2004, p. ii). To address the mandates of *No Child Left Behind*, individual states began to create their own standards.

Political - Virginia Standards of Learning (SOL)

The state of Virginia was well on its way to establishing standards for grades K-12 prior to the establishment of *No Child Left Behind*. In June 1995, the Board of Education adopted Virginia’s *Standards of Learning (SOL)*. These standards were designed to “set clear and concise expectations for student learning and achievement and they were created to be “rigorous, academic, measurable, clear and understandable” (Virginia Department of Education, 2006b, p.

1). Four core areas were established: English, Mathematics, Science and History/Social Science. The standards in these four core areas included goals for the content area to be mastered at each grade level and the progression from one grade to the next, kindergarten through the 12th grade. According to the Virginia Department of Education (2006b), the goals “focus on the application of this information in problem solving and day-to-day situations” (p. 2).

Virginia’s Standards of Learning (SOL) were established and recognized for their “clarity, detail, content, and precision. More than twenty other states have used Virginia’s SOL in some form or another as they developed their own standards” (Virginia Department of Education, 2006b, p. 2). Virginia’s standards led the nation in meeting the requirements of *No Child Left Behind*.

Political and Background – Virginia’s Foundation Blocks

The demands for accountability, rigorous standards, and high stakes testing have taken a toll on compulsory education in grades K-12. Each of these elements puts enormous pressure, stress, and strain on all stakeholders, especially the students. In response, policy makers have recognized the need to more adequately prepare children prior to school entry. “The effects of the legislation are beginning to be felt in preschools because policy makers believe that an early start on developing academic skills will help children reach the standards they are expected to achieve in elementary school” (Stipek, 2006b, p. 455).

Early childhood education is essential to ensuring students are ready to learn when they enter kindergarten and are able to achieve success as they progress through school and life. With early childhood education, students learn more, teachers accomplish more and taxpayers get more for their education tax dollar (Almanza, Reynolds, Schulte, & Long, 2009, p. 21).

Virginia's Department of Education created a committee that developed *Virginia's Foundation Blocks for Early Learning: Guidelines for Literacy and Mathematics* for preschool aged children in 2001. The purpose of this document was to provide early childhood educators with a set of guidelines that included indicators for the success of students entering kindergarten. However, at that juncture, it was a list of guidelines, not standards. Thus, in 2004, when the Virginia General Assembly added language to the *Appropriation Act for the At-Risk Four-Year-Old Program* (the Virginia Preschool Initiative) requiring the establishment of academic standards that would be measurable for students' achievement and preparing children to enter kindergarten. The guidelines not only needed revision, but also had to be upgraded to standards.

The Department of Education coordinated this effort by establishing a committee of preschool specialists, teachers, and administrators to review and revise *Virginia's Foundation Blocks for Early Learning: Guidelines for Literacy and Mathematics*, and in doing so altered and upgraded the guidelines as standards. They were renamed *Virginia's Foundation Blocks for Early Learning: Standards for Literacy and Mathematics*. These standards continued to evolve over time in compliance with the importance of meeting federal standards. The following year, 2005, two additional core areas were incorporated into the standards: science, and history and social science. This addition resulted in another version that was named *Virginia's Foundation Blocks for Early Learning: Standards for Literacy, Mathematics, Science, and History and Social Science*. This version of the revised standards corresponded to and was linked very closely with Virginia's kindergarten Standards of Learning (SOL). In 2007, the Department of Education again revised the standards to include standards for physical/motor development, as well as personal/social development. The title of the standards changed to *Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds*.

Early education is imperative to future academic success and the growth of children's intellectual development. *Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds* establishes a measurable range of skills and knowledge essential for four-year-olds to be successful in kindergarten (Virginia Department of Education, 2005).

Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds which for ease of reading, will be referred to from this point forward as, Foundation Blocks. These are aligned to Virginia's kindergarten SOL and according to the state they "reflect a consensus of children's conceptual learning, acquisition of basic knowledge, and participation in meaningful and relevant learning experiences" (Virginia Department of Education, 2005, p. 7). A chart demonstrating a direct correlation of the Foundation Blocks to Virginia kindergarten SOL can be found in Appendix A.

Relevance of Pre-Kindergarten Standards

Are standards developmentally appropriate and relevant for children under the age of five? Depending on one's perspective, the relevance of pre-kindergarten standards could be questionable. One might argue that "standards" for this age are counterproductive to what we know about children's growth and development. There are many well-established philosophies and theories describing the features of high-quality early childhood curricula (Scott-Little, Kagan, & Frelow, 2003). Although Virginia's Foundation Blocks were created by a committee consisting of specialists, early childhood teachers, and administrators, one must ask these questions: Were the Foundation Blocks based on research? Was the development of young children, the cultivation of important early childhood skills, and models of how young children learn considered? Or have the standards been created solely on an academic basis where children are regurgitating rote information with no meaning?

Literacy experts, for example, point out that, although children need to develop the decoding skills (phonological awareness, alphabetic principle, repertoire of automatically recognized words) that are typically emphasized in standards, children's language, conceptual and cultural knowledge, vocabulary, and verbal reasoning abilities are just as important as decoding to reading success (Stipek, 2006b, p. 457).

Since developing literacy skills are interdependent, they should be learned in the context of meaningful text. Connections to children's experiences should be linked to texts that were being read to them or that they were reading so that children would attach meaning and importance to what they were learning. This was true of all the core areas of the standards. For example, a common kindergarten standard for young children would be to count to twenty. Children could easily memorize the numbers from 1 to 20 and could readily regurgitate that knowledge upon command.

Many children learn to count by rote without knowing what a 7 is, or that 8 is one more than 7, and 6 is one less. Counting is only meaningful if children also understand one-to-one correspondence between objects and numbers and that the last number when counting refers to how many items are counted. Standards that do not articulate these other understandings could lead to mindless instruction, such as rote counting (Stipek, 2006b, p. 457).

Therefore, preschool standards that reduce attention to other cognitive abilities such as the development of reasoning skills and creative, critical, and analytical thinking could actually do more harm than good.

Early learning standards must build on what is known about the distinctive features of early childhood, and be solidly grounded in research in key content domains. This

research base should provide the foundation for establishing standards and performance indicators, reflecting important key ideas, age-appropriateness, and desired outcomes for young children, ensuring that early learning standards serve to benefit, not detract from effective learning and positive development in the early years (Neuman & Roskos, 2003, p. 3).

Other early childhood developmental factors such as social competence, behavior regulation, and emotional well-being should be included in the standards, since they play an important role in predicting a children’s academic performance. Stipek (2006b) summed it up very well, “clear standards for student learning can be valuable, but only if the standards are well informed by knowledge about how young children learn and the many dimensions of development that could contribute to children’s success in and out of school” (p. 457). According to Goldstein, “many early childhood practitioners in the U.S. are experiencing tension between their desire to offer students developmentally appropriate learning experiences and their obligation to teach the academic knowledge and skills mandated by their state” (Goldstein, 2008, p. 253).

Virginia’s Foundation Blocks for Early Learning:

Standards for Literacy, Mathematics, Science, and History and Social Science

Description

The Foundation Blocks are pre-kindergarten standards that have been aligned with Virginia’s SOL. According to the Virginia Department of Education (2005), the Foundation Blocks “provide early childhood educators a set of minimum standards in literacy, mathematics, science, and history and social science with indicators of success for entering kindergarten based on scientifically-based research” (p. 7). The standards echoed many meaningful methods in

children's learning such as conceptual learning, acquisition of basic knowledge, and participation in relevant learning experiences. According to an overview provided within the Foundation Blocks, it was evident that the Foundation Blocks were aligned to Virginia kindergarten SOL and were linked closely to *Virginia's Phonological Awareness Literacy Screening (PALS)* and to the national guide, *Teaching Our Youngest, A Guide for Preschool Teachers and Child-Care and Family Providers*, produced by the Early Childhood-Head Start Task Force, U.S. Department of Education, and U. S. Department of Health and Human Services (2002).

Expectations

The Foundation Blocks were designed and organized to build towards the Virginia kindergarten SOL. The physical construction of the Foundation Blocks included a four-level tier, which detailed the category (core area), domain (standard), specific indicator (expectations), and practice example (sample activity). The format of the Foundation Blocks was designed to identify the standards and to provide more detailed information in the form of expectations with each of the standards. Teachers were able to identify specific details that were encompassed within each standard to ensure they were addressing all the necessary components and meeting all the requirements. Also included in the Foundation Blocks were sample teaching activities to assist teachers in planning meaningful activities.

Further Details

In addition to providing activities and expectations for each individual standard, details, definitions and explanations were provided to introduce each core area (literacy, mathematics, sciences, and social sciences). Specific terms related to early childhood education were presented in a glossary format.

As discussed earlier, the Foundation Blocks were revised from guidelines to standards and additional core subjects were added to the original literacy and mathematics standards to include science and history/social science, as well as physical/motor development and personal/social development. These revisions and upgrades occurred over three years (2004-2007). There was no evidence, at that time, of specific research conducted on the Foundation Blocks as guidelines or standards, and their connections, if any, to early childhood theories. Therefore, this was the initial task of this research project.

Purpose of the Study

Virginia's Foundation Blocks have been formatted to align with early childhood theories. However, the emphasis and implementation of the Foundation Blocks seemed to be solely at the discretion of the preschool teacher. Many factors contributed to how preschool teachers taught. These factors included educational background, training, pedagogy, years of experience, school culture, and knowledge. These factors played an important role in the understanding and execution of the Foundation Blocks and varied from teacher to teacher. Therefore, the purpose of this collective case study was to understand how preschool teachers interpreted and implemented the Virginia Foundation Blocks. This collective case study was designed to examine influences that impact implementation of Virginia's Foundation Blocks. The specific research questions for this study are:

1. What instructional strategies do preschool teachers utilize and how are they implemented in preschool classrooms?
2. What early childhood theories are reflected in classroom practices and how do teachers interpret these theories?

3. Are there ways in which educational background influences preschool teachers' pedagogy, and if so, how does educational background impact teaching?
4. In what types of school settings (a preschool center or an elementary school) are the preschool classrooms situated and how do these structures effect the implementation of Virginia's Foundation Blocks within the classroom?

Definitions

Preschool - a program for four-year-olds prior to entry into kindergarten

Virginia Preschool Initiative (VPI) - a Virginia funded preschool initiative for at-risk four-year-old children

Foundation Blocks - Standards of Learning created for four-year-old children in preschool; also known as *Virginia's Foundation Blocks for Early Learning: Standards for Literacy, Mathematics, Science, and History and Social Science*

Kindergarten - traditionally, the first year of compulsory school attendance for five-year-old children

Limitations and Implications of the Study

Due to the researcher's current teaching position as a preschool teacher, study limitations include the bias of the researcher. The researcher for this study committed to putting aside her preconceived notions about early childhood theories, the Foundation Blocks, and how the Foundation Blocks should be interpreted and implemented. Other limitations include the inability to generalize these findings to a larger population because this research was limited to four classrooms within three school districts. The variety of teachers' pedagogy, educational backgrounds, and interpretation of the Foundation Blocks were noticeable, but due to the small numbers of participants, could not be generalized to any population. The findings of this study

included preschool teachers' knowledge and understanding of the Foundation Blocks from their own experiences and backgrounds.

Summary of the Study

The study was structured and written within five chapters. Chapter 1 provided an explanation of the study, the problem it explored, the purpose of the study, the research questions, definitions, limitations, and implications and a summary. Chapter 2 provided knowledge of early childhood theories by Jean Piaget, Lev Vygotsky, and Barbara Rogoff and included four specific concepts related to these theories: (a) importance of play, (b) emergent literacy, (c) spatial reasoning, and (d) scaffolded instruction. In addition, these theories were evaluated and compared to Virginia's Foundation Blocks. Chapter 3 provided the methodology for the study which included the research questions, research design, advantages and challenges of qualitative research, preliminary research, research sites, research design, sample and site selection, and the data collection and analysis process. Chapter 4 presented the results of data analyses from the study. Chapter 5 provided the findings for each research question, implications for practice, and implications for further research.

Chapter 2

Review of Literature

Curricula and instructional design that has been proven to influence and heighten children's potential, understanding, and growth was essential within the structure of preschool standards. What information and theories have been researched and are proven to work? What were the most influential early childhood theories and why?

To answer these questions we must rely on research and theory. This chapter was structured to provide insight into literature based on early childhood theories, their importance and how they related to the Foundation Blocks.

Preschool History

Public preschool in the United States started in 1925. Due to the high standards that have been implemented at each grade level, including kindergarten, much of the curriculum that was formerly taught in kindergarten was dropped to the lower level of preschool. "Children's experiences in pre-k classrooms appear quite similar to recent descriptions of kindergarten." (Howes, Burchinal, Pianta, Bryant, Early, Clifford, Barbarin, 2008, p. 28) Therefore, it is appropriate to begin with how kindergarten originated.

Kindergarten originated in Germany in the mid-nineteenth century. Friedrich Froebel created the initial, foundational educational philosophy of kindergarten. Froebel studied under the Swiss philosopher, Johann Heinrich Pestalozzi. Pestalozzi believed that mothers should "take a leading role in the education of small children" (Allen, 2005, p. 1). However, Froebel did not follow this belief. He believed that mothers were not qualified to teach their children. He, therefore, created a new type of educational philosophy for early learning.

Froebel's belief was based on the "transcendental qualities he found latent in plant life and the potential for the garden to symbolize children's growth and their placement within social relations" (Herrington, 2001, p. 31). He thought gardens were a place for individuals to express themselves, become spiritual and contemplate scientific notions (Herrington, 2001). "Froebel believed that children should learn through sensorial experiences and not through mere words" (Herrington, 2001, p. 31). His kindergarten concepts and facilities grew to sixty-one schools within nine years. They were led by female supporters. Soon however, the Prussian government viewed them as a threat to the structure of the family and banned them. By this time, German immigrants began their own private kindergartens (limited to family members) and thus introduced the concept of kindergarten to the United States. By 1860, the first English-speaking kindergarten in the United States was opened. By 1875, the United States had over one hundred kindergartens. Then in 1873, kindergartens were opened as part of the public school system in St. Louis. This changed the perception of kindergarten from agriculturally-based learning (through gardens) to industrial learning. The concept of kindergarten changed in that the "garden was not an agricultural plot, but a symbolic setting: part work, part play, and full of the present" (Herrington, 2001, p. 39). The use of gardens diminished over time and by the beginning of the twentieth century, garden spaces were only given to grades three through six and the kindergarteners were "reduced to planting seeds in Dixie cups" (Herrington, 2001, p. 41).

Early Childhood Theories

Piaget

Jean Piaget was at the forefront of speculating and developing theories in the area of "genetic epistemology." This was the term he applied to the study of the development of knowledge. Piaget was instrumental in identifying basic assumptions on the formation and

evolution of children's mastery of knowledge. His research led him to the identification of four stages of cognitive development. These stages are sensorimotor, preoperational, concrete operations, and formal operations (Boeree, 2003).

After leaving the sensorimotor stage, in which a child created mental images and was able to pretend, the child entered the preoperational stage. The preoperational stage commonly occurred between the ages of two and seven (Boeree, 2003). The preoperational stage encompassed four-year-olds, which was the focal point of this research project; thus, Piaget's preoperational stage was the primary focus here.

According to Piaget, in the preoperational stage, the child was able to associate symbols used to represent other things. These symbols included written or spoken words, drawings or creative play. "The use of language is, of course, the prime example, but another good example of symbol use is creative play..." (Boeree, 2003, p. 2).

Play was found to be extremely important to children's development in Piaget's work. He concluded that children used play to make connections to their experiences and to formulate understandings. Two types of symbolic play occurred during the preoperational stage: dramatic and constructive. Dramatic play, also known as pretend play, involved players "acting out imaginary roles and characters. The players use materials, their voices and their bodies for imaginary purposes" (Waite-Stupiansky, 1997, p. 68). Constructive play involved children using concrete objects to produce a representation of another object such as blocks to represent a house or building. In doing so, children were attempting to construct images of their own realities of the world.

It is by trying to assimilate the objective to an earlier schema that the child accommodates the latter to the former (thus going back to the reflex schemata) and it is

by repeating (through “reproductive assimilation”) the movement, which is successful that the subject performs this operation and constitutes the new schema. Experience cannot therefore be, even at the beginning, a simple contact between the subject and a reality independent of himself, since accommodation is inseparable from an act of assimilation, which assigns the objective a meaning relating to the activity itself (Piaget, 1953, p. 365).

In other words, the children were assimilating “information about the environment into existing schemata. Through the continuous interaction of assimilation and accommodation, the child gradually gains some sense about objects and their purposes” (Singer & Revenson, 1996, p. 40). Assimilation meant that the new knowledge fit children’s current ways of thinking; therefore, the new information was added to and strengthened existing knowledge. Accommodation, on the other hand, occurred when the new information did not fit the children’s current way of thinking and the knowledge was reorganized to replace current understandings. This was how children learned new things and added knowledge to their schemata.

Play was a valuable part of children’s cognitive, social and emotional development. A variety of benefits amassed from children playing. These benefits included: (a) operational thinking, (b) reversing one’s reasoning, (c) perspective taking, (d) symbolic thinking, (e) problem solving (Waite-Stupiansky, 1997), (f) sharpening children’s senses, (g) vocabulary growth, (h) concentration, (i) flexibility, (j) social harmony, (k) delayed gratification (such as waiting for a turn), (l) playing different roles (which created empathy for other people), and (m) the expansion of a children’s imagination and creativity (Singer & Revenson, 1996).

In addition, Piaget was interested in the developmental stages of children. He was intrigued with this notion and conducted several experiments to study how children thought

about geometric concepts. Spatial reasoning referred to the way a child related to geometric shapes and how they related to each other. According to Singer and Revenson (1996), “There are three basic types of geometric concepts” (p. 84). The earliest to develop was the concept of Euclidean geometry, which dealt with shapes and angles. Next in the hierarchy of geometric concept development was projective geometry (problems of perspective), and the final development is topology (proximity which included nearness, separation and enclosure). “Yet in a simple experiment, Piaget came to the conclusion that children develop geometrical concepts in the reverse order of historical discovery” (Singer and Revenson, 1996, p. 84). In these experiments he discovered that “once the topological concepts were mastered, notions of projective and Euclidean geometry could develop” (Singer and Revenson, 1996, p. 84). After several different experiments, he discovered that young children have difficulty distinguishing between two different perspectives of the same object. Piaget called this spatial egocentrism. Young children (three or four years old) thought that there was only one point of view, theirs. Piaget discovered that the primary characteristic of young children’s spatial perspective was their egocentrism. They only had the ability to “see” from the perspective in which they were currently viewing.

At the most imitative stage, the child mimics with his whole being, identifying himself with his mode. But this game, though it seems to imply an essentially social attitude, really indicates one that is essentially ego-centric. The copied movements and behavior have nothing in them to interest the child, there is no adaptation of I to anyone else; there is a confusion by which the child does not know that he is imitating, but plays his game as though it were his own creation (Piaget, 1959, p. II).

“Similarly, younger children center on one aspect of any problem or communication at a time” (Boeree, 2003, p. 3). Associating different perspectives was not mastered until children entered the stage of concrete operations (about the age of nine or ten). Piaget did not typically include social interactions in his theory of cognitive development. However, occasionally he touched on social factors within his work and at times paralleled Vygotsky’s work (Rogoff, 1990).

Vygotsky

Lev Vygotsky was another well-known early childhood theorist. Vygotsky’s theory was founded on the notion that children’s cognitive development took place in the society and environment in which the children lived. Through the use of culturally created tools and social interactions, children develop higher cognitive skills to solve problems. This theory was known as the Zone of Proximal Development (ZPD) and was described as “encompassing the gap between the child’s level of actual development determined by independent problem solving and his/her level of potential development determined by problem solving supported by an adult or through collaboration with more capable peers” (Dixon-Krauss, 1996, p. 15).

Originally, this concept developed from Vygotsky’s theory that learning began with a social interaction and progressed into an internalized independent function. This contradicts Piaget’s theory, because Piaget believed that cognitive processes were developed internally; however, as repercussions unfolded externally, modifications occurred in the children’s relationships with their environment. An example that explains the differences between Piaget’s Stages of Development theory and Vygotsky’s ZPD theory was the analogy that “intellectual development is viewed as a ‘ladder’ in Piaget’s account and as a ‘web’ in Vygotsky’s account” (Tryphon & Voneche, 1996, p. 13). Piaget’s Stages of Development

layered on top of each other as the children passed from one stage into another, as if climbing a ladder. However, Vygotsky's ZPD continually encompassed development, scaffolding and intertwining, layer upon layer in a web-like format. This required the foundation of a children's prior knowledge and understanding to serve as a catalyst in gaining meaning to current issues being learned. Using this foundation, in conjunction with new understandings learned from a peer or an adult, children made connections and inferences to what they already knew and understood, thus scaffolding more meaning to add to their foundation of knowledge. Vygotsky believed that "what children can do now in social interactions becomes, in time, part of their independent repertoires" (Tryphon & Voneche, 1996, p. 147).

"Providing assistance is critical to the acquisition of cognitive and social skills within the zone of proximal development" (Jadallah, Anderson, Nguyen-Jahiel, Miller, Kim, Kuo, Dong & Wu, 2011, p195). Using the concept that "the means whereby an adult or 'expert' helps somebody who is less adult or less expert" (Wood, Bruner and Ross, 1976, p. 89), Wood, et al, crafted the term scaffolding. By their definition, scaffolding was the "process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond him unassisted effort" (Wood, et al, 1976, p. 90). Initially, according to Jadallah, et al,

... the original use of this metaphor had no explicit reference to Vygotsky. The implicit link between Vygotsky's zone of proximal development and scaffolding was first made explicit by Cazden in 1979 (Stone, 1998). Ever since, the scaffolding metaphor has been used to describe how educators can best assist learners with the zone of proximal development to nudge them forward until the learners can independently apply a newly acquired strategy (2011, p. 196).

Morcom and Cumming-Potvin concluded that “since the 1980s, researchers like Bruner (1986) have interpreted Vygotsky’s work and adopted the metaphor of scaffolding to conceptualise [sic] how adults can support children’s learning through graduated, strategic steps that create ZPDs” (2010, p. 167).

Play was an example of this concept. The “imaginative sphere” (Vygotsky, 1978, p. 102) created action which freed children from “situational constraints (Holzman, 2009, p. 51) but at the same time also inflicts its own constraints. In this way, “play creates a zone of proximal development of the child. In play a child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself” (Vygotsky, 1978, p. 102). Vygotsky further explained,

Though the play-development relationship can be compared to the instruction-development relationship, play provides a much wider background for changes in needs and consciousness. Actions in the imaginative sphere, in an imaginary situation, the creation of voluntary intentions, and the formation of real-life plans and volitional motives - all appear in play and make it the highest level of preschool development (1978, p. 102).

Holzman identified three types of play: free play which usually pertained to pretend/fantasy, game play which as a rule included “structured rule-governed activities that are more common in school years than dominant in adulthood (2009, p.50) and theatrical play or performance which was “common in early childhood and in adulthood” (2009, p. 50). Holzman demonstrated the importance of each of these types of play through Vygotsky’s work. For the purposes of this section and the research study, we will only examine

Vygotsky's understanding of free/pretend play since it was directly linked to early childhood experiences. According to Smidt, Vygotsky believed that

Play was an activity different from other children's activities in the sense that in playing the child creates 'pretend play' situations. What Vygotsky says is that the child is able to engage in pretend play because the child is able to start to separate the visual field from the field of sense, or meaning. This makes play a step in the decontextualisation of meaning - the ability to think about something even when the thing is not present or evident. When a young child explores an object the child uses perception and this involves examining not only the colour or shape or size or texture of the object but also its meaning (2009, p. 105).

Free or pretend play was usually the first type of play experienced by young children. Pretend play allowed children to use their imagination to create meaning and understanding. However, "more than this, in play the ability of the child to take charge of her own activity begins" (Smidt, 2009, p. 105). The children involved rules within their play. Vygotsky defines "rule" as "not rules that are formulated in advance and that change during the course of the game but ones that stem from an imaginary situation" (1978, p. 95).

An example of this type of play included when children played "mommy." Both Holzman (2009) and Smidt (2009) reference this example. When children play, they made up rules as they fit the particular imaginary situation. In a situation where children were playing "mommy," they would re-create situations that they had seen before and mimicked those actions such as "You're the Mommy and you feed the baby like this, OK?" (Holzman, 2009, p. 51). In doing this, the children reconfigured a past situation and incorporated their own rules as they went. The children became the mother and the rules of a mother, as the children

knew them, applied. “The child must be in charge, be loving, or be angry in accordance with the mothering the child has experienced, or with a feeling or set of feelings the child needs to explore” (Smidt, 2009, p. 106). Thus, meaning involved children making generalizations about what they knew with regard to situations and then applied these generalizations during play to create understanding. Initially children structured their imaginary situations very similarly to real situations. According to Vygotsky,

... there is very little of the imaginary. It is an imaginary situation, but it is only comprehensible in the light of a real situation that has just occurred. Play is more nearly recollection of something that has actually happened than imagination. It is more memory in action than a novel imaginary situation (1978, p. 102).

The development of play then moved toward the purpose of conscious realization. Therefore, from the development point of view, creating imaginary situations can be considered the means of developing abstract thought. Vygotsky summed it up well, “a child’s greatest achievements are possible in play” (1978, p. 100). Play was an essential part of children’s cognitive development and should be incorporated in all preschool classrooms.

Rogoff

Barbara Rogoff’s work was founded in Piagetian and Vygotskian theory and was based upon the assumption that children’s cognitive development strongly related to the social contexts they experienced. She emphasized the importance of apprenticeships between advanced learners and novices. Rogoff (1990) explained apprenticeships by saying that children are:

... apprentices in thinking, active in their efforts to learn from observing and participating with peers and more skilled members of their society, developing skills to

handle culturally defined problems with available tools, and building from these givens to construct new solutions within the context of sociocultural activity (p. 7).

Social/cultural structures and interactions played key roles in the cognitive development of children and could not be isolated from one another. They intertwined to create a “cultural curriculum” in which children began from the earliest moments of life to build upon the perspectives learned from their societal interactions and relationships.

Often the push of individuality and independence of the children was so strongly focused that other influences in the children’s cognitive and social development were overlooked. These influences included environment and cultural curriculums as well as the assistance of others. Rogoff (1990) used the analogy of focusing attention on the development of an individual tree without delving into the contributions of the surrounding trees in the forest that affected the individual tree’s development. Society and culture were important to the development of student learning.

Rogoff (1990) believed that apprenticeships basically served as a model for the cognitive development of children. Apprenticeships assisted children in organizing their own development by incorporating interactions of people with more knowledge and skills. This helped to support and develop cognition. In providing this support and interaction, the children (novices) attempted to make sense of the problem or situation with the assistance of a more knowledgeable or experienced person or group of persons (peer or adult).

Communication between adults and children seemed to construct a “bridge” between the two (Rogoff, 1990). This bridge often started with the children’s perspective. Using the children’s perspective, the adult created a connection at the children’s level to assist the children in understanding the adult’s perspective (which can also be viewed as scaffolding).

Prior knowledge and experiences not only help students to create a comfort level but also assisted them in building bridges to connect current knowledge to what they were learning (Rogoff, 1990). Children should be allowed to explore, experience and interact with others so that they learned as much as possible. Apprenticeships helped to enhance and foster these experiences. However, apprenticeships ensured the novice was encountering meaningful, challenging, and appropriate experiences that would improve the ability, growth, and understanding of the educational, cultural, and societal well being of the novice.

Lave and Wenger (2002) agreed with Rogoff; they believed that situated learning was a form of apprenticeship that they termed legitimate peripheral participation.

Legitimate peripheral participation provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts and communities of knowledge and practice. It concerns the process by which newcomers become part of a community of practice. A person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a sociocultural practice (p. 29).

This definition described exactly what young children (newcomers) were trying to achieve. Young children were trying to become "a part of a community" and to create relationships between themselves and "old-timers (adults), and about activities, identities, artifacts and communities of practice" (Lave & Wenger, 2002, p. 29) or knowledge. Lave and Wenger's work paralleled Vygotsky's Zone of Proximal Development in that they viewed more recent interpretations of the ZPD as a "societal, or "collectivist" perspective.

Under such societal interpretations of the concept of the zone of proximal development researchers tend to concentrate on processes of social transformation. They share our

interest in extending the study of learning beyond the context of pedagogical structuring, including the structure of the social world in the analysis, and taking into account in a central way the conflictual nature of social practice. We place more emphasis on connecting issues of socialcultural transformation with the changing relations between newcomers and old-timers in the context of a changing shared practice (Lave & Wenger, 2002, p. 49).

Clearly, these theories included a variety of important concepts critical to early childhood and important to the enhancement of preschool-aged children's growth and development. Essential concepts from these theories that should be included in the design of early childhood standards and programs included:

- Importance of play
- Emergent literacy
- Spatial reasoning
- Scaffolded instruction

The following section will provide further details on the importance of each of these theoretical concepts and identify if and how they were incorporated within the Foundation Blocks.

Theories and Foundation Blocks

To investigate the representation of these early childhood theories within the Foundation Blocks, the content of these standards were evaluated and compared to concepts of early childhood theories. Therefore, the following section was divided into concepts directly related to early childhood learning and development.

Importance of Play

As mentioned earlier, play was an extremely important aspect of preschoolers' development. "All our activities in life create impressions on our minds and on our personalities. In play, all or most of the memories that we assimilate are pleasant ones: that is what makes it play" (Sime, 1980, p. 82). When the activities or information were unfamiliar or surprising to learners, adaptation of thinking was required, as in Piaget's theory, by accommodating the new information and knowledge. Accommodation occurred when the children made sense of and accepted the information and assimilated accordingly. This allowed the children to build upon prior knowledge and learn through the process. When children encountered new information that was not pleasing, not understood, or not acceptable at the time, accommodation was unlikely or difficult. When new information was difficult to understand, children, especially preschoolers, often used this information in situations of play in an attempt to create a new understanding. Children used imitation to further examine their understandings and knowledge to support accommodation (Sime, 1980).

Play involves 'pretending' or the use of symbols that 'stand in' for that which is real: one child 'becomes' a dog and another child its 'owner'; a puppet 'speaks' for a child; a pile of blocks represents a cave for bears (Mendoza & Katz, 2008, para. 1).

Children often reversed roles in which they "practice complementary roles in response to the play of other children, thereby assuming the identity of another" (Langer & Killen, 1998, p. 176). This allowed children to obtain and view different perspectives, which in turn aided in their understandings of themselves. Play provided a "complex series of social mirrors that are crucial for developing knowledge of social roles, social self and social others" (Langer & Killen, 1998, p. 176).

Vygotsky also viewed play as an important factor in the development of preschool-aged children. “In fact, he considered play to be the principal activity for the interiorization and appropriation of reality during the first years” (Moll, 2001, p. 50). Vygotsky also agreed that play was the opposite of children’s every day situational behavior. “In play, action is subordinated to meaning, but in real-life, of course, action dominates meaning” (Vygotsky, 1978, p. 101). Changes and needs in consciousness are provided through the background of play. Play creates the formation of real-life, imagination, and creation of voluntary intentions, all of which make play one of the “highest levels of preschool development” (Vygotsky, 1978).

Like Vygotsky, Rogoff believed that play was affective, motivational, and imaginative and it gave meaning to objects and situations. “Children experiment with the meanings and rules of serious life, but place these meanings and rules in the center of attention” (Rogoff, 1990, p. 186). She further illustrated that using imagination and involvement in devising and implementing rules served to free children from everyday situations and the “ordinary meaning of objects or actions” to develop greater meanings and understandings, “working out the scripts of everyday life - adult skills and roles, values and beliefs and to learn to take the perspectives of others” (Rogoff, 1990, p. 186). In addition, “children playing together actively negotiate meaning” (Rogoff, 1990, p. 187) which fosters creativity in play. Children will role-play real life situations and act them out from a personal perspective. Creativity was used to help make sense of the world. This helped the child develop a sense of belonging by negotiating mutual understanding of the perspectives of their peers.

It was for this reason that the National Association for the Education of Young Children (NAEYC) advocated that developmentally appropriate practices. These practices, including play, should be included in every early childhood classroom.

The difference in developmentally appropriate classrooms is that those goals are appropriate for children's age levels and individual patterns of learning and development; respectful of their needs and interests; and address all areas of human functioning, not just narrowly defined basic skills. The worst misinterpretation of developmentally appropriate practice is that if teachers just let children play, at Grade 3 they will emerge literate. Yes, play is important; it is essential for children to develop high-level social strategies and other important learnings. However, teachers must know why, when, and how they can help play become an enriching, meaningful learning experience and they must also know what experience and specific strategies children need to become literate (Bredekamp. & Rosegrant, 1992, p. 5).

The Foundation Blocks not only provided standards for early childhood educators related to play, they also provided sample ideas for instruction and meaningful activities for active student engagement while making progress in achieving the standard. Even though the word "play" was not specifically identified within a standard domain, it was identified throughout the sample activities in most of the four core areas: literacy, mathematics, science, and history and social sciences. The Foundation Block creators suggested engaging children:

- by conversing through play
- by providing a variety of printed materials as props for play
- by acting out stories
- by encouraging children to write about their play
- by providing mathematical materials such as food preparation utensils (thermometers, clocks, scales) for use in play
- by having children act out stories and songs that include number concepts

- by providing dramatic play opportunities for children to act out roles of various family members, playing games
- by using dramatic play to talk about behaviors.

Emergent Literacy

According to Dixon-Krauss (1996), “Emergent literacy is probably more consistent with Vygotskian theory than any other area of Western literacy research and practice” (p. 18).

Emergent literacy referred to children’s experiences with and knowledge of printed language, including attempts to “interpret or communicate using symbols, regardless of whether the symbols are print, scribbles, or pictures” (Dixon-Krauss, 1996, p. 18). Vygotsky believed that speech used during play as well as drawings by young children highlighted symbolic representation. “Make-believe play, drawing, and writing can be viewed as different moments in an essentially unified process of written language development” (Vygotsky, 1978, p. 116). Through emergent literacy, children learned the importance of literacy in their everyday lives and the social as well as cultural functions of print.

“The years from birth through five are the most important for emergent literacy development” (Elliott & Olliff, 2008, p. 551). Emergent literacy skills were incorporated in the Foundation Blocks and were mostly emphasized in the core area of literacy. However, some representations of emergent literacy can be noted in the core areas of science as well as history and social sciences. Children’s expectations related to the standards and recommended activities include concepts of emergent literacy. These activities include exploring print through:

- books
- computers
- letter recognition

- identifying parts of a book
- using magazines
- logos, and signs
- telling stories
- finger plays
- drawing and painting pictures
- providing a variety of opportunities for children to write
- building vocabulary through singing

All of these activities support young children in the development of emergent literacy skills.

Spatial Reasoning

Spatial reasoning was defined as a sense of shapes and how they relate to each other. As noted earlier, Piaget discovered that children actually “develop geometrical concepts in the reverse order of historical discovery” (Singer & Revenson, 1996, p. 84). Piaget’s research showed that “once topological concepts were mastered, notions of projective and Euclidean geometry could develop” (Singer & Revenson, 1996, p. 84).

The Foundation Blocks have incorporated spatial reasoning standards and expectations and sample activities primarily within the content areas of mathematics and science. The geometry standard stated that, “a child will describe simple geometric shapes (circle, triangle, rectangle, and square) and indicate their position in relation to him/herself, and to other objects” (p. 21). The expectation indicators for children included matching and sorting shapes; describing shapes and how they are similar or different; recognizing shapes; describing the position of objects in relation to other objects (i.e. beside, next to, above, below, under, over, top, and bottom); sequencing objects by size; and comparing length as well as mass of different objects.

Activities included doing puzzles; describing shapes by comparing and contrasting; tracing and cutting out shapes; providing opportunities for children to build with blocks (unit blocks, legos, discovery blocks); and giving children meaningful experiences using geometric shapes. Each of these activities were considered developmentally appropriate for a young learner.

Brain structures for spatial reasoning are fully functional at a very early age, adult intervention can enhance both use and representational ability, and practice in early grades is an important, perhaps even essential, part of the scaffold for later learning (Gersmehl & Gersmehl, 2007, p. 181).

Thus, the Foundation Blocks used early childhood theories that incorporate the fact that young children began to cognitively understand spatial reasoning.

Scaffolded Instruction

Vygotsky's Zone of Proximal Development (ZPD) was probably the most well known theory that related to scaffolded instruction. ZPD was defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). When children are assisted by a more knowledgeable peer or adult to create understanding and awareness, scaffolded instruction took place. "By employing scaffolding techniques, educators help children achieve heights they otherwise could not reach, assisting in the construction of the understanding and the development of their abilities" (Lee, 2011, p. 38). Scaffolding builds on prior knowledge and "refers to the gradual withdrawal of adult control and support as a function of children's increasing mastery of a given task" (Moll, 2001, p. 139). Successful scaffolding should maintain children's attention on the task at hand and should maintain their motivation.

Apprenticeships, in addition to how it was defined earlier, also served as a method of scaffolding instruction. “A major feature of apprenticeship is that it involves some sort of ‘scaffolding’ of cognition. Rogoff has suggested that most intellectual competencies can be seen as acquired by a scaffolding process” (Scholnick, Nelson, Gelman & Miller, 1999, p. 43).

Scaffolded instruction is defined by the Foundation Blocks as “instruction in which adults build upon what children already know and provide support that allows children to perform more complex tasks” (2005). The concept of scaffolding was seen throughout the Foundation Blocks in the context of the details provided for better understanding of the standards. Terms and phrases such as “foundation of experiences;” “familiarity is a foundation for learning experiences;” “to build upon;” “helping children to relate;” “foundational concepts;” and “guiding young children” were used in the introduction of each new standard to clarify valuable information regarding the implementation of each standard. An example might be when a child is attempting a task in play, but is struggling; the teacher would ask some questions that required the student to think about prior knowledge. The teacher waited to see if the child had an “ah-ha” moment. If not, the teacher could then provide scaffolded instruction to assist the child. One can see that many of the concepts of the early childhood theorists have been considered in the development of the Foundation Blocks.

Foundation Blocks and Their Linkage to Kindergarten SOL

A chart (Appendix A) has been designed to directly correlate the Foundation Blocks to the Virginia kindergarten SOL. This chart’s structure allowed for noting one-to-one correlations from left to right. In instances of no correlation, notations were included within the kindergarten standards block.

There was a direct correlation between the Foundation Blocks standards and the Virginia kindergarten SOL. A majority of the Foundation Blocks were linked to the Virginia kindergarten SOL. All literacy, math, and science standards were directly linked and scaffolded upon each other. The only standards not directly linked seemed to be in the area of history. This appeared to be logical since the growth and development of children vastly increased from four-year-olds to a five-year-olds. This growth and development allows a child to function at a higher level and be able to achieve the standards identified at kindergarten level, that otherwise might have been accomplished at a younger age.

Conclusions and Further Research

Various aspects of the Foundation Blocks, including the historical, political, theoretical, academic, and developmental perspectives, have been examined within this chapter. Upon reflection, various theories of how children learn, although not explicitly stated, impacted the development of *Virginia's Foundation Blocks for Early Learning: Standards for Literacy, Mathematics, Science, and History and Social Science*. Theories from Piaget, Vygotsky, and Rogoff were visible within the standards as well as related sample activities in regards to the role of play, emergent literacy, spatial reasoning, and scaffolded instruction. Their theories were implanted within the detailed explanations of the standards, verbiage, or activities and in the primary and secondary resources. According to the National Association for the Education of Young Children (NAEYC) and the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE), four essential features must be established in order for early learning standards to benefit young children and families. The following is the list of essential features from the NAEYC NAECS/SDE (2002) Early Learning Standards Position Statement.

1. Effective early learning standards emphasize significant, developmentally appropriate content and outcomes

- Effective early learning standards give emphasis to all domains of development and learning.
- The content and desired outcomes of early learning standards are meaningful and important to children's current well being and later learning.
- Rather than relying on simplifications of standards for older children, the content and desired outcomes of effective early learning standards are based on research about the processes, sequences, and long-term consequences of early learning and development.
- Effective early learning standards create appropriate expectations by linking content and desired outcomes to specific ages or developmental periods.
- The content of effective early learning standards, and expectations for children's mastery of the standards, must accommodate the variations -community, cultural, linguistic, and individual - that best support positive outcomes. To do so, early learning standards must encompass the widest possible range of children's life situations and experiences, including disabilities.

2. Effective early learning standards are developed and reviewed through informed, inclusive processes

- The process of developing and reviewing early learning standards relies on relevant, valid sources of expertise.
- The process of developing and reviewing early learning standards involves multiple stakeholders.

- Once early learning standards have been developed, standard developers and relevant professional associations ensure that standards are shared with all stakeholders, creating multiple opportunities for discussion and exchange.
- Early learning standards remain relevant and research based by using a systematic, interactive process for regular review and revision.

3. Early learning standards gain their effectiveness through implementation and assessment practices that support all children's development in ethical, appropriate ways

- Effective early learning standards require equally effective curriculum, classroom practices, and teaching strategies that connect with young children's interest and abilities, and that promote positive development and learning.
- Tools for assessing young children's progress must be clearly connected to important learning represented in the standards; must be technically, developmentally and culturally valid, and must yield comprehensive, useful information.
- Information gained from assessments of young children's progress with respect to standards must be used to benefit children. Assessment and accountability systems should be used to improve practices and services and should not be used to rank, sort, or penalize young children.

4. Effective early learning standards require a foundation of support for early childhood programs, professionals and families

- Research-based standards for early childhood programs, and adequate resources to support high-quality programs, build environments where early learning standards can be implemented effectively.
- Significant expansion of professional development is essential if all early childhood teachers and administrators are to gain the knowledge, skills and dispositions needed to implement early learning standards.
- Early learning standards will have the most positive effects if families - key partners in young children's learning - are provided with respectful communication and support.

Virginia's Foundation Blocks for Early Learning: Standards for Literacy, Mathematics, Science, and History and Social Science related directly to these essential features. The Foundation Blocks emphasized all domains (literacy, mathematics, science, and history and social science) that are meaningful and important to children's current and future learning. The preschool standards were linked and sequenced with kindergarten SOL that included expectations and associated content to desired outcomes. The Foundation Block committee developed and reviewed the standards through an informed process by including experts, multiple stakeholders, and opportunities for discussion. In the future, a process for regular review and revision will be provided. Since the standards were relatively new, this process had not yet been established.

Although the state had provided recommended activities and suggestions to early childhood teachers for making standards meaningful and appropriate, no specific methods, techniques, or pedagogy (with the exception of defining scaffolded instruction in the glossary) were included. Therefore, if a teacher was not certified or knowledgeable about appropriate

techniques to use, or if a more experienced teacher had not had staff development in these areas, the standards may “encourage instruction that is not responsive to the individual needs of children” (Stipek, 2006b, p. 456) and “will create a laundry list of skills, which some experts are concerned will lead to fragmented teaching of isolated skills that are not meaningful or motivating for children” (Stipek, 2006b, p. 457). Early childhood teachers needed to be able to effectively encompass the content knowledge included in the standards with effective teaching methods and strategies that were age/developmentally appropriate, motivational, and exciting.

If not, critics fear that a greater emphasis on academic skills in preschool would come at the cost of attention to non-academic dimensions of development that are critical for success in life as well as in school including social competence, behavioral self-regulation and physical and emotional well-being (Stipek, 2006b, p. 456).

Teachers needed to be effective, active, motivating, and aware of research methods and pedagogy when teaching early childhood standards. Effective teachers should ask questions, focus children’s attention, help children document and interpret what they see, and provide scaffolds as well as suggestions (Stipek, 2006b).

According to Kendall (2003), “early childhood standards, by contrast, often succeed in describing important milestones in social and emotional growth with standards that specify certain student knowledge or skills” (p. 66). However, again, this required a teacher to have appropriate knowledge and skills. The teacher must be able to incorporate academic standards with social and emotional growth. Early childhood teachers should be provided with “resources and staff development opportunities to increase their understanding of how young children learn and develop” (Bodrova, et al, 2001, p. 12). Research needs to be done to examine early childhood teachers’ teaching methods, practices, applications, and pedagogy, as they applied to

the implementation of the Foundation Blocks. Research findings could then establish ways in which the Foundation Blocks may be implemented with age-appropriate methods, practices, and pedagogy. It was important to determine whether early childhood learning strategies and theories (including social and emotional factors) as well as academics were being incorporated in early learning classrooms. As early childhood theorists have stated, preschool-aged children should learn through activities that encourage exploration, fun, excitement, and the love of learning. As Marva Collins, the respected educator and the founder of Westside Preparatory School in Chicago said, “When someone is taught the joy of learning, it becomes a life-long process that never stops, a process that creates a logical individual. That is the challenge and joy of teaching” (Great Quotes From Great Teachers, 1994, p. 28).

Summary

In 1995, the Commonwealth of Virginia adopted standards, Virginia’s Foundation Blocks, for four-year-old preschool children. These standards were created to assist children in their preparation for kindergarten entrance. These standards were created and written using the underlying foundations of well-known theorists such as Piaget, Vygotsky, and Rogoff. They aligned with kindergarten SOL and incorporated essential preschool concepts including:

- importance of play
- emergent literacy
- spatial reasoning
- scaffolded instruction.

Sample activities were provided in the Foundation Blocks documentation; however, no guidelines were established for how the standards were to be implemented. Further, the

meanings of the standards were open to individual interpretation. These two limitations prompted this case study research.

Chapter 3

Methodology

This chapter detailed the design of the study, outlines the research questions that were used to direct this inquiry, and described the research design, population and selection of the participants, data collection procedures, data analysis, and specific limitations.

Virginia's Foundation Blocks were formatted to align with early childhood theories. However, the emphasis and implementation of the Foundation Blocks were left to the discretion of the preschool teacher. Many factors contributed to how preschool teachers taught. These factors include educational background, training, pedagogy, years of experience, school culture, and knowledge. The purpose of this case study was to understand how preschool teachers interpreted and implemented Virginia's Foundation Blocks. Specific research questions were designed for this study.

Research Questions

Case studies had conceptual structures that were usually organized around research questions (Denzin & Lincoln, 2000; Stake, 1995). These questions were not informational questions but were questions that were formatted around "issues or thematic lines. These issues are complex, situated, problematic relationships. They invite attention to ordinary experiences but also to the language and understanding of the common disciplines of knowledge" (Denzin & Lincoln, 2000, p. 440). Therefore, questions directly linked to qualitative case study research were best asked in a "how" and "why" format (Merriam 1988, p. 9; Yin, 1994).

Questions guided this research and assisted in gaining understanding and knowledge. The following questions provided structure to frame the exploration of insights and details through observations, surveys, interviews, and artifacts.

1. What instructional strategies do preschool teachers utilize and how are they implemented?
2. What early childhood theories are reflected in classroom practices and how do teachers interpret these theories?
3. Are there ways in which educational background influences preschool teachers' pedagogy, and if so, how does education background impact teaching?
4. In what type of school settings (a preschool center or an elementary school) are the preschool classrooms situated and how do these structures effect the implementation of Virginia's Foundation Blocks within the classroom?

Research Design

According to Denzin and Lincoln (2000), when identifying a case to study, the “case may be simple or complex” (p. 436). The case may be a child, or a classroom of children, or a particular incident such as professionals mobilizing to study a childhood condition (Denzin & Lincoln, 2000; Stake, 1995). A case study can involve jointly studying “a number of cases in order to investigate a phenomenon, population or general condition” (Denzin & Lincoln, 2000, p. 437). The researcher may not know in advance if the selected cases will or will not have common characteristics. As indicated by Denzin and Lincoln (2000),

Individual cases in the collection may or may not be known in advance to manifest some common characteristic. They may be similar or dissimilar, redundancy and variety each important. They are chosen because it is believed that understanding them will lead to better understanding, perhaps better theorizing about a still larger collection of cases (p. 437).

In addition, Stake (1995) states,

For the most part, the cases of interest in education and social service are people and programs. Each one is similar to other persons and programs in many ways and unique in many ways. We are interested in them for both their uniqueness and commonality. We seek to understand them (p. 1).

Both of these quotes directly linked to this research project. This research did identify common characteristics within the sample. Examination of the practices of these teachers led to the development of an understanding of their processes and their applications in implementing the Foundation Blocks. The process of collecting data and writing case studies made it possible to identify commonalities and/or uniqueness.

There were four major characteristics of qualitative research that were “prominently figured in case study research” (Merriam, 1988, p. 17). First, case study researchers were concerned with the process of the research rather than the “outcomes or products” (Merriam, 1988, p. 19). This research included observing classrooms as well as interviewing and surveying teachers to understand the implementation of the Foundation Blocks. These data collection methods made it possible to recognize the processes and pedagogy of administering the Foundation Blocks.

Interest in meanings was a second essential characteristic of qualitative research (Merriam, 1988). This research spotlighted the interpretation and implementation of the Foundation Blocks by teachers in VPI preschool classrooms. Multiple meanings were embedded in all the observations/interviews and it was the researcher’s responsibility to use these observations/interviews to mediate perception of these events.

Qualitative researchers are intrigued with how people interpret or make sense of their lives, experiences and their social worlds (Merriam, 1998). The researcher is an extremely

important aspect in qualitative case studies. This fact is a third characteristic of qualitative case study research and “cannot be overemphasized” (Merriam, 1988, p. 19). Teachers, like all humans, interpret, analyze and construct meanings from what they are learning based upon their educational backgrounds, experiences in the world, upbringing, values, and relationships. Observers bring personal meanings and perceptions with them as they conduct observations in classrooms. Interpretation of classroom observations is an extremely important component in how qualitative research is analyzed, understood and reported.

The fourth and final characteristic is that qualitative research involves fieldwork. Case studies “are concerned with understanding and describing process more than behavioral outcomes” (Merriam, 1988, p. 31).

Advantages of Qualitative Research

According to Merriam (1988), case study design had “strengths that outweigh its limitations” (p. 32). Qualitative case study research could produce information that was comprehensive and in-depth. Researchers utilizing qualitative methods seek to explore situations or phenomenon in settings that usually required observation in order to describe the context and interactions of participants within that contextual setting. “Qualitative inquiry is inductive - focusing on process, understanding, and interpretation - rather than deductive and experimental” (Merriam, 1988, p. 21).

Challenges of Qualitative Research

Case study design was usually selected because of the nature of the research problem as well as the questions that were being asked. Qualitative case study research placed the researcher as the primary instrument for the collection and analysis of the data. Personal instincts and abilities were therefore relied upon. Since the researcher was human, mistakes would be made,

opportunities would be missed and “personal bias will interfere” (Merriam, 1988, p. 37). Every researcher came in with pre-understandings and assumptions. “The problem is that our common sense pre-understandings, our suppositions, assumptions, and the existing bodies of scientific knowledge, predispose us to interpret the nature of the phenomenon before we have even come to grips with the significance of the phenomenological question” (van Manen, 1997, p. 46).

As the researcher conducted this research, the researcher needed to be constantly aware of personal bias and subjectivity. The researcher needed to be able to “borrow other people’s experiences and their reflections on their experiences in order to better be able to come to an understanding of the deeper meaning or significance of an aspect of human experience” (van Manen, 1997, p. 62). Witnessing other people’s experiences allowed the researcher to become more experienced, which in turn permitted the researcher to become more informed, shaped, and enriched. In addition, witnessing these experiences assisted the researcher in understanding and provided more in depth meaning to this research.

This qualitative case study stance was appropriate for the current research since the goal was to determine how Virginia’s Foundation Blocks were interpreted and implemented by preschool teachers. By analyzing these classroom teachers’ interpretation of the Foundation Blocks, the researcher discovered that the meanings teachers attached were fairly consistent regardless of their prior knowledge, experience, and educational level. However, when examining these teachers’ implementation of the Foundation Blocks to their teaching methods and pedagogy, it was discovered that meanings were attached to the teachers’ prior knowledge, experience, and educational level.

Preliminary Research

Initially, this research project required me to analyze Virginia's Foundation Blocks to determine if early childhood theories had been used in the construction of these standards. This analysis included three phases of preliminary research into the creation of Virginia's Foundation Blocks. These phases were as follow:

- Phase I – the examination of the educational background of the Virginia Department of Education's (VDOE) Development of Early Childhood Standards (DECS) committee members (The creators of the Foundation Blocks)
- Phase II – the examination of the resources used to construct the Foundation Blocks
- Phase III – the examination of references cited within those resources used to construct the Foundation Blocks

Phase I. The first step was to examine the expertise of the committee members who constructed the Development of Early Childhood Standards (DECS). Upon initial inspection of the Foundation Blocks, the DECS committee list was examined to identify exactly who and what types of early childhood specialists participated in the development of and/or review of the standards. The DECS Committee consisted of eleven members from public schools and higher education faculty and administrators, content specialists, early childhood specialists, and Virginia Department of Education officials. Using the information provided in the Foundation Blocks Acknowledgements, the researcher was able to confirm the qualifications of all the members except three. Two of these three members were identified, in the acknowledgements, as representatives from the University of Virginia and one was identified as a representative from the Virginia Commonwealth University. The search to confirm the qualifications of each committee member extended from the Virginia Department of Education (DOE) Teacher

Education and Licensure records on the Virginia DOE website to individual university websites for faculty information and qualifications. These three members were not identified at either location. That was not to say that these individuals were not associated with these institutions (at the time of the Foundation Blocks creation); it is to acknowledge that this information could not be confirmed at the time of this research.

The remaining eight committee members were identified as being certified in preschool and other varying areas of certification. These areas included reading specialist, elementary education, special education, curriculum/instruction, gifted, middle school, administration and foreign language (French). All members held a minimum of a postgraduate professional license with a master's degree in their area of expertise. Two members held doctorates in education. These committee members were affiliated with various educational institutions including public schools, universities, and the Virginia Department of Education.

According to the acknowledgements page of the Foundation Blocks document, each DECS committee member was recognized as an expert in early childhood education. After examining the DECS committee members' credentials on the teacher education and licensure section of the Virginia Department of Education website, it can be accepted that this was indeed an accurate statement. With the exception of one, all the committee members held a minimum of a master's degree with certification in early education and/or early childhood special education.

The DECS Review Committee, consisting of thirteen members, was a separate entity from the original committee. The DECS Review Committee was designed to assess and evaluate the end product, Virginia's Foundation Blocks, which was created by the original DECS committee. These members were also employees from Virginia public schools and specialists in the four core areas (reading, mathematics, history/social science, and early childhood) including

the Superintendent of Public Instruction, the Deputy Superintendent, the Assistant Superintendent for Instruction, and the Director of Elementary Instructional Services from the Virginia Department of Education. With the exception of four members, all held at minimum a postgraduate professional license in their area of specialty. Four members had obtained doctorates in education and were licensed as division superintendents. One member's highest degree recorded on the Virginia Department of Education website was a bachelor's degree with certification in the areas of Early Childhood Special Education and Mental Retardation K-12. The educational background of three of the thirteen members could not be identified and/or located. In conclusion, after researching the credentials and expertise of the body of committee members who created and established the Virginia Foundation Blocks for Early Childhood Education, it was clear that they were highly qualified, a diverse group and all were stakeholders in the development of these standards.

Phase II. The second phase of this journey was to investigate and determine if early childhood theories were incorporated within the standards when they were written. If well-known early childhood theories were incorporated into the standards, the expected learning outcomes reflected by the standards would incorporate suitable age appropriate and developmentally appropriate concepts.

The first step was to identify the resources used in the creation of the Foundation Blocks as indicated in the reference list within the document and to determine if these resources were supported by early childhood theories. The resources used by the committee included numerous documents and publications by the U.S. Department of Education, National Institute of Child Health and Human Development, National Institute of Education, National Association for the Education of Young Children, International Reading Association, Center for Education Division

of Behavioral and Social Sciences and Education, National Research Council, National Council of Teachers of Math, National Council for Social Studies, National Science Teacher Association, and various research documents published by independent companies.

In initially examining these resources, there were no stated links to early childhood theories. There was no mention of resources written by early childhood theorists themselves, or resources written by other individuals involving early childhood theories. Therefore, to further the investigation, resources from each of the documents used in the creation of the Foundation Blocks were examined to identify their sources and to determine if they were backed by early childhood theories. This step involved examining these resources more closely and evaluating their references. A substantial portion of these references (approximately 75 %) did in fact utilize common references that identified Piaget and/or Vygotsky as sources of vital information on the structure and development of early childhood learning. However, no resources identified Rogoff. These common references included *Preventing Reading Difficulties in Young Children* - a study conducted by the National Research Council (Snow, Burns & Griffin, 1998) and *Early Childhood Mathematics: Promoting Good Beginnings* (a joint position statement of the National Association for the Education of Young Children and the National Council for Teachers of Mathematics, 2002). Many of the Foundation Blocks were created using the basis of Piaget's and Vygotsky's theories.

Phase III. The third phase was to examine the relationship between the preschool standards and kindergarten standards. This was an important step because the rationale for creating the Foundation Blocks was to increase the school readiness skills of children entering kindergarten. If the Foundation Blocks did not link to kindergarten standards, they would not provide a foundation for success on the kindergarten SOL. The results of the examination have

been illustrated in a chart that was designed to directly relate the Foundation Blocks standards to the Virginia kindergarten SOL. (see Appendix A). This chart demonstrated that the vast majority of the preschool standards were directly and closely linked to the standards for kindergartners.

All three phases of investigation showed evidence of the influence of early childhood theories in the creation of Virginia's Foundation Blocks. This evidence included:

- Committee members with early childhood knowledge and/or backgrounds established the Foundation Blocks.
- Early childhood theories were indirectly referenced and could be viewed as underpinning the Foundation Blocks.
- The Foundation Blocks correlated with the kindergarten Standards of Learning (SOL), which subsequently aligned to compulsory grades 1-12 Standards of Learning.

Data confirmed that the VDOE, the DECS committee and the DECS Review Committee all made efforts to ensure that the individuals developing the standards were highly qualified; that these representatives incorporated appropriate early childhood theories within the structure; and that these standards logically linked to kindergarten standards. The three phases within this preliminary research provided a foundational understanding of the creation, progression and development of the Foundation Blocks. This analysis provided a framework in which to further examine the Foundation Blocks and their execution within preschool classrooms.

Research Sites

Four different preschool sites within the state of Virginia were selected as locations to conduct this research. These four sites together were treated as a collective case study for this research. These preschool sites were established with the assistance of the researcher's doctoral

committee. Each was selected in order to encompass diverse communities and locations. These populations included a rural district with a large free and reduced meal population, a rural district that educated the children of professors and graduate students from two local universities, and an urban district with a large and diverse population. Four schools within these districts were selected as research sites. (More details follow in the Sample Site Section.)

School principals at these localities were contacted to discuss the possibilities of conducting the research at these locations. After obtaining the Virginia Tech's Institutional Review Board (IRB) approval, the researcher gained permission from each locality's district office prior to conducting any research. After approval was granted from the Virginia Tech IRB and the schools and district offices, the researcher contacted the preschool teachers from the Virginia Preschool Initiative (VPI) classrooms. The researcher introduced herself and explained the research as well as what was required of each teacher. The researcher answered any questions and addressed any concerns that the teachers had. For example, concerns addressed confidentiality, anonymity, and/or who (including the teachers) would have access or was provided information pertaining to the data. The researcher and the teacher discussed dates to conduct this research that were suitable to the classroom teacher's schedule.

Research Design

The research design included observing preschool classrooms at these sites and determining how each instructor implemented Virginia's Foundation Blocks, as well as how they selected methods of implementation. Qualitative research data were collected through classroom observations, interviews with teachers, and surveys completed by the preschool teachers.

Site Selection

The Virginia Preschool Initiative was a state funded preschool program that was conducted throughout the state by public school districts. These classrooms were granted monies from the state to target the most at-risk children and provided preschool services to these children. The classrooms were governed by the state and program evaluations were conducted every other year. Public school settings were the only sites utilized for this research. This was due to the fact that the State of Virginia has mandated that public preschool classrooms implement the Foundation Blocks.

Non-probability sampling was a method used in qualitative case studies because “there is no way of estimating the probability that each element has of being included in the sample and no assurance that every element has some chance of being included” (Merriam, 1988, p. 47). This was true in this research proposal. There were numerous public preschool classrooms located in the state of Virginia. However, it was neither possible nor feasible to include all of them in this research. There was also no reason to include all of these sites in a probability sampling since there were a variety of preschool classroom locations in both rural and urban settings within the state.

The selected schools met the criteria of serving diverse populations and all had Virginia Preschool Initiative (VPI) classrooms. Pseudonyms were used so that no identifying information would be published. The following chart details characteristics of the research sites.

Table 1

Research Site Characteristics

Site	Number of VPI Classrooms within the school	Location Details	Percentage of Teaching Staff by Highest Degrees Earned*		Percentage of Student Ethnic Population **							Percentage of Free or Reduced Lunch Program
			B	M	W	B	A	H	N	AI	U	
Border School	3	Small city in rural area	57	43	25	63	2	10	0	0	0	90
Central School	2	Medium sized suburban area	65	35	89	7	3	1	0	0	0	18
West School	1	Rural area that houses a major university	35	65	92	3	2	2	1	0	0	38
South School	1	Rural area	41	59	91	3	0	4	0	1	1	63

* B= Bachelor’s Degree, M= Master’s Degree

** W= white, non-Hispanic, B= black, A= Asian/Pacific Islander, H= Hispanic
 N= Native Hawaiian, AI= American Indian, U= Unspecified

More specific data follows in the upcoming sections. These data, which pertained to VPI students and staff at these sites, were obtained during initial meetings and/or during the research.

Data Collection

Qualitative methods for gathering data were used in this study. Data collection began in January 2008. Prior to any data collection, the researcher completed a Virginia Tech Institutional Review Board (IRB) application and obtained approval from the university to conduct this

research. Approval was granted on November 11, 2007. The researcher requested an IRB continuation, since the data were still being analyzed and the dissertation was being written.

The researcher originally expected to personally conduct classroom observations and interviews. However, circumstances beyond the researcher's control made personally conducting all of the data collection activities impossible. (The researcher's employer would not grant her time off to conduct these observations.) Thus, in order to assure that the study was conducted as designed, the researcher sought volunteer doctoral students to participate in the data collection at three of the four school sites. The researcher conducted the research at one of the school sites. The observers were trained and provided with specific details of this research project prior to conducting any observations.

Three volunteer doctoral students were used to conduct the observations in three of the participating classrooms. These doctoral students received research training through various classes they had taken within their doctoral coursework. All of these volunteers completed at least one qualitative research course that covered ethnographic data collection techniques. Therefore, they had an underlying foundation of how to conduct research and observations. However, they were further trained in the specific details and requirements of this particular research project.

Observer training. A training session was held for the observers. The training session lasted for two hours. Observers were provided with an organized training manual/notebook that began with a brief, written overview of the research purpose, a general abstract of the educational theories involved, a list of the research questions, and a summary of their responsibilities as observers.

Observer responsibilities. These responsibilities included visiting their assigned classroom on three days. Observers were asked to record field notes in as much detail as possible during the teachers' lessons, concentrating on what the teacher said and what questions the teacher asked. They were asked to record as many details as possible including verbal and non-verbal instructions and communications. The observers were also asked to obtain copies of lesson plans, work samples, titles of books, or other materials being used by the teachers during the lessons. In addition, observers were asked to provide details pertaining the classroom environment such as student work displays, classroom floor plans and provide a list of other materials being used by photographing the classrooms. Cameras (for classroom environment photos) were offered to the observers but they chose to use their own personal equipment.

The training manual also included a copy of the permission letter or form received from the participating district offices approving the research. This document was included so that the observers would have documentation of permission for the research from the schools' district offices. Furthermore, a copy of the Virginia Tech Institutional Research Board (IRB) approval letter was included for confirmation of the research from Virginia Tech.

The observers' placements were identified and provided, including the name of the school, school address, and the name of the participating pre-k teacher. Supplies that were needed for the observations such as legal pads, post-its, pencils, ink pens, cassette tapes, and a survival kit made up of tissues, gum and mints were provided to the observers.

Observations were only one of the tasks volunteers were asked to complete during their three-day classroom visits. Observers were asked to obtain the signed consent form from the participants that had been emailed earlier. To ensure that the researcher had a signed consent form from each participating teacher, the observers were provided with an extra copy of this

document in case the participating teacher did not receive the email or had misplaced it. After the participating teachers submitted signed consent forms to the observers, a copy was made and given to the participating teachers.

Observers were also provided a survey (Appendix C) and asked to give it to the teacher on the first day of observations so that the teacher would have ample time (3 days) to complete the survey and return it to the observer. An envelope was provided to the observer to give to the teacher so that the survey could be placed in the envelope and sealed.

The observers were asked to conduct interviews with the participating teachers. The observers were provided specific questions to be asked during these interviews (see Appendix B) and were taught how to use probing techniques (see Appendix B) to obtain as much information as possible (provided by the researcher). Observers were instructed to record the interview using a tape recorder. Tape recorders (for the interviews) were offered to the observers but they each choose to use their own personal equipment. Observers were asked to conduct the interview on the last day of observations. Observers were provided a copy of the Foundation Blocks for teacher's use during the interview (if needed).

During the training session, observers were instructed that they would participate in a debriefing session with the researcher. Additionally, they would provide answers to questions or clarify understandings about observations during the processes of coding, interpreting, analyzing and writing. Observers were also provided with the researcher's cell phone number to call if they had any questions or concerns before, during, or after the observations of the classrooms.

After the training, the observers visited the school sites and recorded field notes. All day observations were conducted three times per classroom. This research's doctoral committee determined that three days per site would allow an observer the opportunity to study the normal

routine within each classroom. This allowed the observer to develop an understanding of the teacher's pedagogy, teaching practices, strategies and methods. In addition to observations of what was being taught, the observer also simultaneously conducted observations of each classroom environment and recorded related information within the text of field notes.

Interviews. A semi-structured interview was conducted and recorded with all preschool teachers. Questions that were asked during these interviews can be found in Appendix B. These interviews took place on the last day of observations at each school location, in a quiet, secluded place and lasted for approximately one hour. The observers used the questions provided by the researcher as well as the probing techniques (see Appendix B) to encourage the participating teachers to respond thoroughly and provide as much information as possible. As stated in the observer training, these interviews were tape recorded by the observer and then transcribed by the researcher so that the data could be analyzed. According to van Manen (1997), these conversational interviews have specific purposes:

(1) it may be used as a means for exploring and gathering experiential narrative material that may serve as a resource for developing a richer and deeper understanding of a human phenomenon, and (2) the interview may be used as a vehicle to develop a conversational relation with a partner (interviewee) about the meaning of an experience (p. 66).

Surveys. To gain knowledge about the educational backgrounds and experiences of each of the preschool teachers, they were asked to complete a survey (Appendix C). Observers provided the participating teachers with the survey and an envelope on the first day of observations. They were asked by the observer to complete the survey, place it in the envelope provided, and seal the envelope before returning it to the observer. The teachers were given three days to complete the survey. The survey was constructed of questions pertaining to personal

teaching information such as number of years taught, other grade levels taught, level of degree held, and what areas of certification were held. In addition, the survey questioned teachers about the professional development areas of training that they had received and the proficiency level in which they rated themselves (extensive, significant, or limited).

Artifacts. Observers were asked to collect as many artifacts as possible. These artifacts included copies of lesson plans, names of books and a list of materials that the teacher used during observations and if possible, samples of children's work (without names). The observers did provide the researcher with copies of lesson plans, titles of books used and materials such as handouts used during lessons. These materials were collected and documented by the observer noting the information in his/her field notes, making copies of the teacher's lesson plans and/or taking photos of the classroom environment that included teaching materials and student-created work. The observer provided this information to the researcher during their debriefing session.

Debriefing. After the observer completed the observations and the interview of the preschool teacher, the researcher and the observer engaged in an in-depth discussion of the data collection processes and the data that was collected. These conversations occurred in individual debriefing sessions. These sessions were very informal and were held at various locations such as restaurants and individual observers' homes. The location was dependant upon what best fit the observer's schedule and location. During these debriefing sessions, the observer and the researcher discussed the observation experience, as a whole, and the field notes that the observer recorded. The researcher took notes during the conversations reviewing the field notes from the observer, as they discussed them, to see if the researcher had any questions regarding the field notes, artifacts, surveys, or consent form. The length of these conversations varied with each observer. On average, these debriefing sessions took approximately one hour and 15 minutes.

After the debriefing session, the researcher conducted further discussions with the observer if questions arose during transcription of the interviews, review of the field notes, and/or other questions pertaining to the observations. These additional conversations varied from emailing questions to the observers (if brief) or telephoning the observer for more detailed information as was necessary. Additionally, unstructured informal discussions took place as needed for questions or clarification of what was seen by the observer.

Data were collected through observations, interviews, and surveys. The collection of empirical materials (included field notes, interview transcripts, completed surveys, and artifacts such as copies of lesson plans and educational materials) formed the data set of this research.

Data Analysis

As data were collected, the researcher continually analyzed the empirical materials using a coding process (making notes in the margins, using tabs to identify pages and highlighting important information) that involved segmenting data into themes and categories. Generating codes helped in the process of making comparisons.

The constant comparative method of grounded theory means (a) comparing different people (such as their views, situations, actions, accounts, and experience), (b) comparing data from the same individuals with themselves at different points in time, (c) comparing incident with incident, (d) comparing data with category, and (e) comparing a category with other categories (Denzin & Lincoln, 2000, p. 784).

Observations. Once the researcher received the field notes from each observer, the field notes were transposed from handwritten notes taken by the observer to typed notes completed by the researcher. This allowed the researcher to read the notes more easily, provided space in the margins to code and make notations, which allowed the researcher to apply a number to each line

of the text. Applying numbers to each line of text and using page numbers permitted the researcher to create a code that could be used when comparing notes from each classroom. For example, when comparing emergent literacy in each classroom, the researcher not only noted the initials “EL” (for emergent literacy) in the margins of the notes but also noted “Molly P.1 L # (line number) 11-13.” This information was also used to create a separate list so that when the researcher was writing about emergent literacy, there was a list of where to find the notes for this particular subject for each classroom and allowing the researcher to compare and contrast teacher incidents and categories.

Interviews. Interviews were tape recorded during the original interview. The observers gave the tapes to the researcher during the debriefing session. The researcher then listened to the tapes and transcribed the interviews verbatim into a typed document. The researcher used numbered lines and identification markers noting “teacher (T)” and “interviewer (I).” After transcription was completed, the researcher again read the typed document and identified the answers to each research question by placing the question number in the margins beside the text. Notations were also made in the margins, and page numbers were added with text line numbers to the list of categories already created during the field note examination. For example, emergent literacy information from the interviews was included on the list with the emergent literacy information from the field notes using the same code Molly P. # L #.

In addition, the researcher read and re-read all field notes and transcripts from interviews thoroughly, making notes in the margin, highlighting passages and using flags as labels on the edge of pages to identify specific passages with regard to ideas, concepts, themes and/or categories. Themes were gathered together and clustered into “like” concepts within both the field notes and interview sections. Related concepts were then critiqued as to major, minor, and

unique themes. Themes were then reviewed to determine relationships within each classroom as well as comparing classroom to classroom.

Artifacts. The observers obtained artifacts from the participating teacher and provided these artifacts to the researcher during their debriefing session. These artifacts included photos of the classroom, copies of the teacher's lesson plans, copies of activities (if possible), titles of books used during instructions, and names of materials used during observed lessons.

Once the researcher received the artifacts, they were reviewed, analyzed, coded, and (if possible) added to the corresponding categories list from the field notes and interviews. This narrowed down the search and allowed the researcher to have all of the information by category (such as emergent literacy) when comparing and analyzing the data for the writing process.

Surveys. Surveys were obtained from the observers. The participating teachers sealed their survey in an envelope prior to giving it to the observer. Therefore, the information provided on the survey remained confidential and was only viewed by the researcher. The researcher created a master copy of the survey with combined results from the teachers. Pseudonyms were used to identify responses. The results recorded on the master copy were then used to review and analyze the data more closely. The master copy was checked numerous times to ensure correct responses were transferred. Creating a master copy also allowed the researcher to compare results from the surveys more concisely during the writing process.

Integration. This research study included numerous forms of data, including field notes, interview transcriptions, classroom artifacts, and surveys. In order to examine each of these documents and compare them to each other, the researcher created a category system in which specific details from each form of data were recorded by the teacher's pseudonym with page number and line numbers or the name of the artifact. As each data source was reviewed, coded

and notations made, specific information was recorded into this separate document list. This on-going list of categories continued to grow as the data were evaluated. This process involved creating a chart including all the data pertaining to one specific topic such as emergent literacy, grouped together into categories. This allowed the researcher to compare all of the information from different data sources together since the information was already grouped and identified by the source, page number, and line number or artifact name. During the categorization process, topics were broken into major, minor and unique themes. Then the themes were examined closely to determine relationships within the topic as well as a comparative analysis.

The researcher did not solely rely on this chart. The data sources were continually re-read and reviewed to ensure that important concepts and data were evaluated. The notations in the margins were also used to identify commonalities and differences as well as identifying specific information and quotes within each data source during the writing process.

Summary

A collective case study method was used to examine the interpretation and implementation of the Foundation Blocks, in four classrooms statewide. The four classrooms were in various locations throughout southwest Virginia. The only criteria for the study was that each research site received state funds from the Virginia Preschool Initiative (VPI).

Data collection came from surveys, teacher interviews, and three days of classroom observations. After data collection was complete, analysis procedures led to identification of themes about how the Foundation Blocks were interpreted and implemented in the participants' classrooms. These results have been documented in the following chapter.

Chapter 4

Results

The data included surveys, interviews, observations, and artifacts. The results of the data analysis yielded numerous themes that were consistent across the classrooms and among participants. These themes dealt with preschool philosophies, instructional strategies, and participants' feelings about the new preschool standards that had been mandated by the Virginia Department of Education. Several categories were identified that related to each theme. The categories for each theme were as follows:

(a) preschool philosophies:

- (1) beliefs and expectations for students
- (2) reasons for preschool and having a strong foundation
- (3) having fun in the classroom
- (4) play
- (5) creating lifelong learners/positive starts for life
- (6) emergent literacy
- (7) spatial reasoning

(b) instructional strategies:

- (1) daily routines/methods
- (2) connecting to prior knowledge
- (3) teaching students with varying levels of ability
- (4) fieldtrips and experiences
- (5) social skills and development

(c) participants' opinions about the Foundation Blocks:

- (1) exposure to rather than mastery of the standards
- (2) the standards should never be tested like SOL
- (3) preparing children for kindergarten.

The instructional behaviors (noted in field notes and seen in artifacts) and comments by the participants, whose educational backgrounds and experiences differed somewhat (as seen in Table 2), echoed each other in many of the categories. In some cases, only two or three of the four participants made statements relative to specific categories during their interviews. Categories with comments from at least two participants were reported in these findings. Comments made by individuals that were not repeated by other participants have not been reported. The same is true from field notes and artifacts. Data from field notes and artifacts were analyzed to identify common areas in which teachers used similar activities, centers, or instructional methods.

Table 2
Experience and Educational Level of Participants

Participants	Educational Level	Total Years of Teaching	Total Years of Teaching Pre-K	Other Grade Levels Taught
Lisa	Bachelors	15-20	1-5	K-2
Susan	Bachelors	15-20	11-15	3-5 and 6-8
Amy	Masters	less than 1 year	less than 1 year	n/a
Molly	Bachelors	20 or more	15-20	K-2 and 3-5

Classroom Contexts

The preschool classrooms in this study varied in location, population of students served, and the individual educational backgrounds of teachers. Despite each of these differences, in some ways, walking into each classroom was as if a person visited the same classroom over and

over. The classroom environments were extremely similar, as seen in the classroom photographs taken during observations. The classrooms were furnished with: (a) height-appropriate furniture and fixtures such as tables and chairs, sinks and bathroom commodes, (b) colored learning rugs that emphasized information such as the alphabet, numbers, shapes or animals, (c) storage cabinets or containers, and (d) classroom centers that allowed the students to explore the worlds of housekeeping, dress-up, art, building blocks, puzzles, painting, sensory centers, library, computer, and various kinds of manipulatives. Wall decorations included brightly colored educational posters pertaining to a variety of learning concepts like the alphabet, numbers, shapes, calendars, weather, seasons, thematic units, and original student work.

These classrooms were very similar in the contents of their environments and appeared to be consistent with typical preschools classrooms. One explanation was that because state regulations required certain criteria for children this age, these classrooms included age-appropriate height furniture that must be constructed of sturdy materials such as wood so that the furniture would not fall or could not be knocked down onto the children. The types of centers that were found in these classrooms were very typical of most preschool classrooms.

The most interesting feature within the four walls of each classroom were the students themselves. Even though the students were situated in different parts of the state and had varying demographics, there were many similarities in their classrooms. The photographs and field notes reflected children playing, answering questions, being recognized for doing something great or special, and being physically active. Even though the children in the classroom were not the main focus or directly linked to the research data collected during classroom observations, they were a strong presence in the classrooms and were vital in examining the pedagogy of the classroom teachers.

Theme: Preschool Philosophies

During the interview process, the participants opened up about their personal philosophies of teaching overall as well as their perspectives on teaching preschool. As seen in Table 2, two of the participants taught preschool for fifteen to twenty years and the other two had one to five years of experience in the preschool classroom. Participants drew on their own experiences as teachers in their discussions of current teaching philosophies.

Expectations for students. As the teachers talked during their interviews, some of their expectations for students surfaced. Amy stated,

...I also had teachers tell kids (my friends) that they wouldn't be able to do certain things when they got older. This limiting of the child's imagination before they really even had a chance to believe in themselves I thought was very unfair. I told myself that I would never tell a child that they could or could not do anything, it was up to them and how hard they worked.

Similarly, Molly elaborated on her beliefs by saying,

...But my philosophy of education is that every child can learn. It differs somewhat with the philosophy that you hear that every child can learn to the highest level. I think they can learn but I am not sure that all the children have the innate intelligence to be college graduates. So that, I think they all can learn and that they will learn. Some of them learn at slower rates than others and they need extra time and that's my philosophy with preschool. That we're giving them more of the tools that they will need to succeed in their education when they get to kindergarten. Because when they come in with no background, they really are put in at a huge disadvantage.

Each of the teachers had strong beliefs and expectations for children. They believed strongly in education and they had formed opinions as to why children should attend preschool.

Reasons for preschool and having a strong foundation. Each of the teachers indicated the importance of children getting a good start at the beginning of their educational journey, so that the children would be successful when entering kindergarten as well as progressing through to college. Molly's opinion emphasized that education should be fun and taught through play in the preschool years. She also concluded that learning could change lives and that every child could learn. "I really think that preschool is the foundation for everything else they do..."

In addition to getting a good educational start, each of these teachers emphasized the importance of play and having fun in a preschool classroom when discussing their philosophies. Their statements indicated that they believed that making learning fun would assist children in enjoying school, which in turn would promote learning. In many ways, the teachers did incorporate enjoyable yet meaningful activities in the classroom.

Having fun in the classroom. One of the most discussed issues raised by the participants was that preschool should be fun. Amy's commentary represented this when she stated:

My philosophy is just to help the kids in any way that I can, not limiting them, and letting them know that they can do and be anything they want to, but they must work hard and try their best. Exposing them to many different learning opportunities, building from interests they have shown in the classroom and what they talk about either to me or to one another. To have fun and enjoy what we are doing is also important...I came to this philosophy because when I was in school I was not taught like this. Everything was always so serious, and I just wanted to have fun. I dreaded going to school, and I felt like

if the teachers just let things be a little less serious, but still structured, more kids would enjoy school.

Lisa taught first grade before she moved into her current preschool position. She stated that one of the reasons for making this change was: “I just thought preschool would be fun.” Molly also stated, “they need to learn through play, not through worksheets or workbooks or that kind of thing. They learn through play and through doing.”

Having fun came in many forms within these preschool classrooms. Observations in all of the classrooms provided insight into pleasant daily activities that teachers incorporated to support children’s learning. These enjoyable activities included learning through:

- songs, as demonstrated during music and movement, helped to attain many concepts such as calendar lessons, weather, literacy and mathematical concepts (Molly, Susan, Lisa, and Amy)
- craft projects (which included fine motor skills) such as rainbow pictures (Lisa)
- making booklets about a variety of topics like “My Feet” (Susan)
- scientific explorations such as examining flowers for spring - counting the petals, touching and feeling the flower, stem and pollen on the flower (Susan and Molly) and capturing/examining a butterfly carefully (Susan), examining nature outside - trees and flowers (Susan)
- book browsing - exploring books (Molly)
- making rhythms (Susan and Molly)
- acting out various concepts – through movement like being a butterfly (Susan), being a dinosaur (Amy), slithering like snakes and being stuck in mud (Molly), pretending to be a doctor (Amy), role playing pumping gas in a riding toy like a car (Amy)

- beat the clock - cleaning up procedure, as well as demonstrating the concept of time (Susan and Molly)
- show and tell - students brought various items to show the class and describe (Amy and Lisa)

In addition to everyday activities, celebrations often spawned different types of fun-filled treats within the classroom. Observations in Lisa's classroom occurred during the week of Dr. Seuss's birthday, which equated to many fun-filled activities such as making green eggs, wearing "wacky" socks, making hats from Cat in the Hat to wear, and playing Dr. Seuss games. Both Molly and Amy provided egg-coloring activities for the students to represent the season of spring. Molly incorporated an intriguing St. Patrick's Day visit from a leprechaun. The students discovered small green footprints on the way to their classroom. Once they arrived at their classroom they discovered it had been "messed up" while they were gone to lunch. They concluded that a leprechaun was in their room. The teacher caught the small leprechaun and he was supposed to tell her where his gold was but instead, he turned the gold into chocolate coin pieces before disappearing. The students enjoyed looking for the gold and eating it afterwards.

Play. The activities noted by participants and/or observers as being fun and exciting for the students (as witnessed through their laughter, amazement, and "gasps" of enjoyment during classroom observations) tended to occur primarily during teacher-directed lessons. To accommodate preschool-aged children's need to explore, discover and be creative, play was recommended for preschool classrooms. This was not only demonstrated during classroom observations but was also discussed during teacher interviews. Lisa reiterated this point by saying that "It's work. It looks like play, but at this age, play is work..." She continued to say that she felt she incorporated her personal philosophy into the classroom by:

Allowing them plenty of time to play, but being involved in their play so that it is a learning time. That they learn to clean up after themselves and they learn to share, and take turns and structuring their play without them knowing.

Observations confirmed these philosophies. Each classroom was filled with learning centers for the students to participate in during center time. Most centers were consistent across all four classrooms. These centers as well as some of the items found in the centers are listed below:

- blocks - included legos, wooden blocks, foam blocks, cars, houses, and animals
- puzzles - wooden, foam, floor
- kitchen - refrigerator, stove, table/chairs, plastic food, dishes, pots/pans, utensils
- reading library - various books for themes, holidays
- dress-up/dramatic play - general boy/girl clothes, and community helpers' clothing
- computer - various age-appropriate software incorporating a variety of skills including math and literacy
- painting - easel, paint, brushes, paper, smocks
- art - play dough, cookie cutters, pencils, markers, scissors, paper, crayons, decorative stamps with stamp pads, various types of paper
- sensory - sand, water
- music - instruments
- listening - books on tape and books to follow along
- writing - white boards, chalkboards, paper, various writing utensils

As noted, the centers were consistent in all four classrooms. This was expected since these are typically the standard centers used in preschool classrooms. The items listed above

were the common materials used in each of the classrooms. How the children in each of the four classrooms utilized these centers (as well as the materials and objects within each center) varied. The children used these centers in an assortment of ways to generate, explore, discover, and invent their own creations. Listed below are a few examples:

- dress-up center
 - a. played doctor and gave the teacher a check-up (Amy)
 - b. dressed up and indicated what they were going to be when they grew up, such as a football player, teacher and a firefighter (this was carryover activity from a poem read in class (Lisa)
 - c. dressed up like police officers (Susan)
- block center
 - a. made a house (Molly)
 - b. played with trucks (Susan)
 - c. made an airplane out of legos (Susan)
 - d. made motorcycles (Lisa)
 - e. made and played with a train (Molly and Lisa)
 - f. built items with wheels (Lisa)
- art and painting centers
 - a. students created original pieces of art, including name writing and abstracts using:
 - paint (Susan, Molly, and Amy)
 - crayons (Lisa)
 - finger paint (Amy)

- play dough (Amy) and (Susan)
- computer center
 - a. played Clifford games (Amy)
 - b. played Dr. Seuss' "Catch a Thing" game (Lisa)
 - c. played Milly's Math House (Molly)
- sensory table
 - a. children explored what sand felt like, how it moved, and what can be made with it (Molly and Amy)
 - b. children explored corn and how it felt, how it moved, and what can be created with corn (Susan)

The centers, with their materials, provided children with the opportunity to explore many facets of learning. Exploration differed classroom-to-classroom as well as child-to-child. Even though the children in different classrooms used similar materials (such as blocks), they manipulated the materials in different ways and created different structures (such as a house, an airplane, truck, or motorcycle).

A discussion of the concept of play would not be complete without mentioning what preschool educators typically identified as gross motor skills. Gross motor skills are considered the physical aspects of play that include: walking, running, exercising, jumping, skipping, and hopping. These activities took place both inside (normally in a gymnasium) and outside.

Activities included:

- riding tricycles (Molly)
- nature walks (Susan)
- stretching activities such as hopping, jumping jacks, reaching by raising hands (Lisa)

- waving scarves like tails, then snatching and returning them (Lisa)
- throwing balls at targets (Lisa)
- playing a game of chase (Amy)
- playing “Simon Says” which included standing up, flapping your arms like a bird, running around the room, acting like a dinosaur, and swimming like a sea dinosaur (Amy)
- playing with hula hoops, jumping rope, shooting basketballs, and jumping on mats (Amy).

All four of the teachers integrated gross motor activities in their daily routines but these activities varied from using materials such as jump ropes, tricycles, or balls to exploring nature with nature walks. Each teacher differed in her choice of gross motor activities. However, the concept of gross motor remained the same within each classroom, to get children moving by being physically active.

Creating a positive start in education for students. Although the participants emphasized the importance of having fun in the classroom, making learning exciting for children, and allowing children time to play, they also pinpointed the importance of creating a lasting positive impression on children’s perceptions of education in the hope that these perceptions would impact the children’s value of education in the many years to come. This was evident in the teachers’ interviews.

In an interview, Lisa emphasized the importance of supporting children in making a positive start in school.

Providing a positive start to their education. That’s my most important; I want it to be pleasant for them. That place they want to come and want to be. I think that, for this

group, for this at-risk group, to get a positive start, to get an edge in any way they can. If I can make that academic that's great. If it's already a happy place, a place they want to be then start certainly in academics and make that fun and interesting.

Participants discussed the importance of education, which included getting a good start and foundation, as well as helping individual children to understand how education would improve his/her life by creating opportunities that were dependent upon an education. Molly mentioned the importance of valuing education. She felt that it was essential that children have a positive start in school and view education as worthwhile from the beginning.

My philosophy of education is that education is the best road for people to improve their lives... Because I think if we can't break that cycle of lack of value in education that so many of our children come up with, then we're not going to have a real good chance of success with them to complete high school, much less go on to college.

These statements indicated that these teachers did value the importance of creating a positive start in the educational process. They believed that assisting students in learning academics would aid the students in understanding and accepting the value of education. The participants addressed academics in many ways.

Emergent literacy. Emergent literacy activities were identified within the data as events that allowed students to express themselves verbally, learn about various aspects print and book awareness such as titles, authors, illustrators; recognition of letters; words, sentences, spacing between words, and directionality in which reading and print occurs; and prewriting skills, which allow students to explore writing through scribbling, drawing, writing his/her name, or using various writing instruments. Many of these activities were viewed during classroom observations. Specific examples from each of the study participants are noted as follows.

Amy provided emergent literacy activities that included:

- show-and-tell where students were able to verbally express their thoughts, feelings, and descriptions of items that they had brought from home
- class discussions that included calendar information such as the month, date, year, and weather as well as discussions about dinosaurs, butterflies, frogs, and dinosaur life cycle
- individual conversations with students that included book discussions and interactive discussions during play
- engaged children in the use of computer programs that supported literacy learning
- book discussions during read alouds about vocabulary, comprehension, and predictions
- sang songs that promoted literacy by involving children in learning concepts such as the months and days as well as counting
- encouraged individual students to say “good morning” to each student by name
- used cookie cutter letters to assist students in identifying the alphabet
- used the classroom schedule to help children understand the concept of ordinal numbers (first, second, third, etc.)
- incorporated comprehension skills into gross motor activities, encouraging students to run by quoting the *Gingerbread Man*, “Run, run, run as fast as you can, you can’t catch me, I’m the gingerbread man.”

Lisa also included emergent literacy activities in daily classroom practices. These activities included:

- read alouds such as stories, poems, and books that included vocabulary, comprehension and prediction through discussion about the literature

- show and tell activities that provided students the opportunity to express themselves by describing and discussing the item brought from home
- discussions with the whole class dealing with the months, days, year, and weather for each day
- individual discussions with students who were pretending to read during playtime
- brainstormed about various topics such as items that are warm
- developed pre-writing skills such as writing on white boards
- created letters with pretzels through the concept that letters have circles and straight lines, bumps, or curves
- computer programs featuring pre-literacy skills
- songs were sung to assist children in learning vocabulary such as days of the week and months of the year, long vowel sounds, math concepts involving money and science concepts such as learning about the planets

Susan's emergent literacy activities involved:

- class discussions about the difference between reality and fantasy; animals; travel; maps and where the children live; their feet; how trees and flowers grow; identifying letters; book discussions about vocabulary; comprehension; and predicting future events
- individual discussions with students during play in centers, regarding what time certain events would occur (ex. lunch) and how to use the clock to determine when the class would be going to lunch
- daily discussions regarding the calendar such as the days of the week, months of the year, and the year, as well as the weather

- songs sung to promote learning vocabulary and concepts such as days of the week, months of the year, beginning sounds, student names
- computer programs that focused on literacy such as “Breakthrough to Literacy” in which the student can listen to a story or “paint”
- practicing rhythms that help children to develop a rhythm for reading

Molly was no exception when exhibiting emergent literacy activities in her classroom on a daily basis:

- book time provided the students time with opportunities to browse through and explore book contents including the text and pictures
- encouraged students to create rhythms, which would assist them in understanding reading fluency and rhythm
- assisted students in understanding the beginning sounds of letters
- read and discussed poetry with the students
- identified the number of words in lines of poetry and assisted students in understanding why some lines were longer than others (more words) and that a space comes between each word
- class discussions about
 - a. days of the weeks
 - b. months of the year
 - c. year
 - d. seasons such as spring
 - e. holidays (specifically a St. Patrick’s Day leprechaun’s visit)
 - f. read aloud discussions involved vocabulary, synonyms, and comprehension

- g. viewed pictures of different cultures and discussed the similarities and differences between her students and students of other cultures.
- h. discussion of topics such as students' daily routines, what happens at night, in the morning, and during the day
 - sang songs about the weather and calendar, hip/hop alphabet
 - computer activities which support literacy
 - alpha/leap mat that helped students to identify letters and letter sounds
 - card game that assists students in rhyming words through pictures and beginning sounds
 - pre-writing skills that encouraged students to explore, draw, and write (even scribbling)
 - engaged children in pretend activities where vocabulary words like “slither” and “stuck” in the mud were acted out

Emergent literacy activities are important in developing children's literacy skills. These activities were expected to support children in building a strong foundation for reading. Each of the participating teachers included oral and non-oral (such as writing) activities that allowed the students to express themselves in a variety of ways. The teachers incorporated literacy activities within their daily routines. As a matter of fact, literacy seemed to dominate the daily activities and occurred throughout the day in various subjects such as reading, science, social studies, and even math. Daily routines varied in time, day-to-day, or even activity-to-activity. The literacy activities varied in length of time (depending on the activity), but most sedentary activities averaged five to ten minutes in length due to the attention span of four-year-olds. Activities such as writing and illustrations of what they wrote did not occur daily during the observations within the classrooms. During the three-day classroom observations, teachers did not conduct literacy

instruction with children individually. The only instance of one-to-one literacy work was when a teacher read a book to a child in the reading center.

Mathematical concepts including spatial reasoning. Mathematical concepts include a multitude of activities within a preschool classroom, including counting (anything and everything) and understanding one-to-one correspondences when counting, sense of shapes, and graphing. Spatial reasoning is defined as a sense of shapes and how they relate to each other. Examples of these activities are: completing and working with puzzles, describing shapes, and playing with blocks to help identify positions of objects in relation to other objects (i.e. beside, next to, above, below, under, over, top, and bottom). Activities like these were seen in each of the classrooms and examples are provided for each classroom teacher.

Amy's daily routines involved a variety of mathematical activities, which included spatial reasoning:

- puzzles
- sang songs dealing with math concepts
- counted a variety of items including the number of days that the students had been in school, number of sunny days in the month
- computer programs that incorporated mathematical concepts
- graphing activities that included weather graphs
- played with blocks

Lisa also integrated spatial reasoning and mathematical concepts into her classroom routine as listed below:

- computer programs that used educational software that dealt with math concepts

- identified mathematical patterns in everyday items (using items such as pictures, hats, and computer programs to identify patterns)
- puzzles
- sang music that incorporated mathematical concepts such as money
- played games like the card game “concentration”
- played with blocks

Mathematical concepts and spatial reasoning could also be found in the Susan’s classroom practices. Below are examples of this concept as seen during classroom observations:

- puzzles
- sang songs dealing with mathematical concepts
- counted various objects within the classroom such as the number of days that have passed in March
- assisted students in understanding the clock and “Beat the Clock” (the concept of time)
- provided lessons that dealt with having a certain number of items, giving some away, and determining how many are left (subtraction)
- identified shapes and associated them with various topics such as Valentine’s Day and it’s association with the heart shape
- identified the number of legs on insects
- computer programs that dealt with math concepts
- counting body parts such as feet
- utilizing blocks

Molly exhibited similar behavior in using mathematical and spatial reasoning activities:

- conception of time through activities such as “Beat the Clock,” and discussing the clock and how it identifies what time of day it is (morning, day, or night)
- counted the number of words in titles
- discussions about the year and the first day of spring
- concept of placement such as behind, in front of, etc.
- computer programs such as Milly’s Math House
- writing numerical symbols like the number 9
- discussed the date as being 18 but that it is said as the 18th
- sang mathematical songs
- puzzles
- discussed the number of legs that certain dinosaurs have
- incorporated math and science in activities such as estimating, sorting, counting jellybeans, and explaining that scientists use math every day
- utilized blocks

Each of the teachers incorporated a variety of mathematical activities into their daily schedule. Some of the common activities that occurred in each of the classrooms were the manipulation of puzzles and blocks; use of mathematical songs, and computer programs that incorporated mathematical concepts. With the exception of singing mathematical songs, each of the above mentioned activities occurred during center time. Singing mathematical songs typically occurred on the learning carpet in a large group setting. Computers in the classrooms varied from one to two computers per classroom. Students accessed these computers during center time, with one student using a computer at a time.

Making learning fun and providing opportunities for preschool-aged children to play were only a few of the important aspects of creating understanding, generating enthusiasm, and producing lifelong learners. Building a strong foundation for learning was also vital. In order to construct a strong foundation, the four preschool teachers in this study included both emergent literacy activities and mathematical/spatial reasoning activities in their classrooms every day.

Theme: Instructional Strategies

For teachers, instructional strategies were important tools within the classroom. The participants in this study not only provided insight into their instructional strategies during the interview process, but also demonstrated these strategies during classroom observations.

Daily routines and methods. Daily routines helped to structure the preschool classroom's day. Daily routines are defined as events that typically take place in the classroom every day. These events included, but were not limited to, discussions about books, stories, and/or poems that had been read aloud, the daily calendar, center time, gross motor activities, fine motor activities, and activities that dealt with math, science, and social studies. Methods were defined as the strategies used by the teacher to implement these routines. Methods included techniques such as questioning.

Questioning. This technique allowed children to use their words to express themselves orally and teachers to gain insight into the children's understandings of the material being discussed. The four teachers who were observed for this research used different strategies to encourage children to express themselves orally. Two of the teachers embraced probing children's knowledge and understanding. They allowed children the opportunity to talk, asking a variety of questions throughout the day and during various activities. The two other teachers

limited their questions to items that were brought in for show-and-tell. Examples of these strategies are discussed in the upcoming sections.

As seen in Table 2, Molly and Susan had the most teaching experience in the preschool classroom. In examining their classroom strategies, they had more similar pedagogical methods as compared with those of Lisa and Amy, who had less preschool teaching experience. Susan and Molly tended to encourage children to express themselves orally during literacy activities. During activities such as story time, and theme/literacy discussions, Susan and Molly used questioning techniques such as probing for the meaning of vocabulary words, making predictions, linking to prior learning, and letter/sound recognition. They also incorporated the identification of the title/author/illustrator of books they read to the children, as well as identifying that words have spaces between them in the titles of the books. These types of oral questioning techniques were observed commonly in Susan and Molly's classrooms activities.

Both of these teachers asked students a variety of questions during instruction. Susan was observed asking questions such as:

- “But that was fake wasn't it?”
- “What does ‘prepare’ mean?”
- “What animal has a thing on their nose that looks like a horn?”
- “What does a rhino eat?”
- “Where do they get it? At the grocery store?”
- “What is your parents’ name?”
- “What road do you live on?”
- “What month is your birthday in?”
- “How many feet do you have?”

- “How many feet does your mom have?”
- “What holiday did we have last month?”

Molly also regularly used questions to examine student learning. This was demonstrated by questions such as:

- “What rhymes with frog?”
- “What comes in between words?” (spaces)
- In examining a line of a poem she asked: “Why does this line look shorter?” (number of words)
- “What was yesterday?”
- “What month is it?”
- “What’s the weather today?”
- “How many more days until spring?”
- “What are signs of spring?”
- “What does ‘gnaw’ mean?”
- “What does ‘Wednesday’ start with?”
- “What are they wearing?” (in examining a picture of a Chinese New Year Parade where the participants were all wearing the same costume)
- “Do we look the same every day?”
- “Where do you think the gingerbread man is going?”
- “What happens when the gingerbread man tries to cross the river?”
- “What do you think will happen next?”
- “Was this a real or make-believe story?”

These questions allowed children to use verbal skills to convey knowledge. Many of these questions required higher order thinking skills than giving yes/no answers. According to the data, the more experienced preschool teachers implemented these types of questions within their classrooms. The less experienced preschool teachers only used questioning techniques during show-and-tell, and their questions often just required a one-word answer.

In addition, both Susan and Molly brought objects from nature into the classroom as examples of spring. Interestingly, both teachers brought in flowers for the children to examine as part of the study of spring and they took the children outside to explore signs of spring. During this exploration, the teachers asked questions, allowed the children to examine the flowers closely and asked questions as well.

Lisa and Amy tended to use different questioning strategies to encourage children to express themselves orally. Each of their classroom observations reflected large amounts of time dedicated to “show-and-tell” activities. Examples of these included having students bring items from home to show and describe for the class. “Show-and-Tell” items that Lisa’s students brought included:

- a picture of a rainbow drawn by a friend
- a new hat and mittens, leading to a class discussion about the colors
- a stuffed unicorn, purple with a lighted horn from the Barbie movie; the student stated that it kept her company when she got scared at night
- a box of puzzles, 20 two-sided puzzles, given by the child’s father at Christmas
- a baby Dora that played music, the student stated that she slept with it
- a CD player with many CDs. It was pink/purple with hearts and a new item from Dollar Tree given by the child’s grandparent.

- a baby “My Little Pony” with a fuzzy mane, that talked and sang
- a little cow key chain. The child stated that it used to say “moo” but the batteries were dead.

Amy’s students brought in a variety of items:

- a whistle that sounded like a train
- a plastic crab
- a frog puppet that croaked Christmas songs
- a duck that sang “London Bridge”
- a set of bongo drums
- a stuffed dog
- a baby doll. In discussion about this item, the teacher asked, “Does your baby have clothes? Every week she comes without clothes.”
- a beach ball globe. Teacher discussed blue (water) colored (land) and asked what state and country we live in. In reference to the globe she asked “Do we have more land or water?” Students answered, “water.” Teacher stated, “We have way more water than land. Good.” Then the teacher discussed a student who formerly lived in New Zealand. She showed how far away New Zealand was on the globe. “Can you drive across the water? She answered her own question, “No, you have to fly. You can travel the world when you grow up.”
- another stuffed dog. Teacher asked, “What color is your dog?”
- a Sleeping Beauty cup
- a stethoscope. Teacher asked, “What do you use it for?” Then she answered her question with, “If you use it on animals, then you are a vet... you take care of animals.”

- a baby doll with a bottle
- a ball glove, a glow in the dark baseball, and cleats. Teacher asked, “So you wear your cleats on your ears?” Student replied, “No, on your feet.”
- a frog book from the book fair
- a turtle. Teacher asked student “What color is he?” “Does he have a name?”
- a picture of a child with the Easter Bunny. The student was silent and the teacher asked, “What would you like to tell them? Use your words.”
- a laptop computer. Student stated, “You can go on the Internet and do homework with it.”
- easter eggs
- a hat. Teacher said, “This is your beanie and you play with it outside and it goes on your elbow.” That student commented - “Silly, Ms. Amy. It goes on your head.”

As indicated, some questions were asked during these show-and-tell activities in Lisa’s and Amy’s classrooms, but they all required knowledge level skills. Furthermore, in these two teachers’ classroom observations, very few questioning or probing techniques were noted during other activities that took place throughout the day. Amy and Lisa tended to only ask questions during show-and-tell activities. This was evident in field notes from Lisa’s and Amy’s classroom observations.

Lisa often presented the activity and then the class moved on without any type of questioning or closure. Lisa asked a few questions during the classroom observations such as “What day is it?” and “How are we celebrating Dr. Seuss’ birthday?” As stated before, she only used questioning when prompting students with individual questions during “show-and-tell.”

Like Lisa, field notes from Amy's classroom observations demonstrated that she rarely asked questions and that when she did she tended to ask them primarily during show-and-tell activities. Amy asked questions similar to Lisa such as:

- "What month are we in?"
- "How do we know it is Wednesday?"
- "Weather boy, weather boy what do you see?" (more of a chant than a question)
- "What color is the duck?" (show-and-tell)
- "Does your baby doll have clothes?" (show-and-tell)

Other than show-and-tell, Amy asked few questions during other classroom activities. For example: Amy read to one student and used a probing question about dinosaurs, "How do they know that dinosaurs lived 100 years ago?" She also probed the whole class when substituting a dinosaur roar for a duck quack in a song, "Would a dinosaur quack?" Amy also asked questions during a class discussion about change; however, she asked and answered the questions herself. For instance, Amy asked, "What about the butterfly?" She followed this by stating, "It hatched into a caterpillar, made a cocoon, and turned into a butterfly." She asked a few questions about the globe when a student brought in a beach ball globe. She asked the students about what state and country we live in, as well as, "Do we have more land or water?" followed by, "Can you drive across the water? No, you have to fly" (again answering her own question).

Questioning was one technique that was demonstrated and used each day by each of the four teachers in this study. The questions ranged from the very basic such as "What color is that?" to higher-level questions about rhyming, predicting (what will happen next, why do you think the character did that), sequencing (identifying the name of yesterday),

comparing/contrasting (fake vs. real), and vocabulary questions (what the students think the word means).

In analyzing the questions asked by these teachers, Bloom's Taxonomy was utilized. Bloom's Taxonomy is a six-leveled classification structure designed for identifying the cognitive stages of learning stemming from the lowest level (knowledge) to the highest level (evaluation). Bloom's Taxonomy was used to examine the teachers' questions and questioning techniques.

Amy's and Lisa's questioning techniques fell into the lowest levels of Bloom's Taxonomy since their questions tended to incorporate who, what, when, where, and how questions like "What color is that?" These questions required students to repeat and recall answers. There were also questions that asked students to identify and explain objects (as demonstrated during show-and-tell).

Susan and Molly's questions reflected more of the higher levels from Bloom's Taxonomy. These teachers probed their students' cognitive knowledge by asking questions at the analysis level that compared and contrasted information. Susan and Molly also queried at the evaluation level by probing students to use predicting skills. Susan and Molly, both with more preschool teaching experience, tended to challenge their students to use higher order thinking skills while Amy and Lisa's questions tended to assess their students at a lower cognitive level, according to Bloom's Taxonomy.

Defining Curricula. The teachers each indicated that their curriculum programs that were purchased from textbook manufacturers. These curricula were divided into themes to assist teachers in instructing their students by using concepts and materials such as: stories, manipulatives, and activities to coordinate with specific learning concepts. Some of these themes included family, community, animals, school, and the five senses. Interview questions regarding

the preschool curriculum were interpreted (by the teachers) as materials they used to teach their children (primarily a published series). The word “curriculum” was used by teachers in their comments during interviews to represent the materials they used in their teaching practices. Teachers used the word “curriculum” to identify programs that had been purchased from textbook manufacturers. These preschool teachers indicated that they did not have curricula input in what curricula were purchased. They supplemented curricula with activities and materials that they believed would provide the best learning experiences for their students.

Connecting to prior knowledge. Supporting students in linking new information to prior knowledge assisted in maintaining the child’s attention on the task, activating existing knowledge, and motivating children to learn. During the interview process, the teachers were asked if the curricula they used incorporated lessons that linked to their students’ prior knowledge. According to these interviews, the curricula did not include recommendations for relating learning to prior knowledge. Therefore, frequently the teachers supported the curricula by ensuring that children linked what they were learning to prior knowledge. For example, Molly stated that:

Yes, and that’s another area that you can delve more into their prior learning if you don’t feel the curriculum has gotten to the beginning levels of some children. I do that by asking questions, more basic level questions to see what they do know and more; if they don’t know anything at all about it, you’ve got to include that information in the lessons.

She went on to say that the lessons within each of the curriculum themes also included and drew upon real-life experiences:

Yes, most all of them do. The themes, that’s one thing I like about the themes because they are all themes, no matter what the child’s socio-economic background, they have the

opportunities or could have had the opportunities to experience these things. Like the first one is “Welcome to School” and the next is “Family and Community” and everybody lives in a family and a community so they are things that they relate to and they have pegs that they can hang their knowledge on.

Lisa did not think that the curriculum was tiered or linked to prior knowledge in any way. However, she stated that she tried to incorporate experiences that would assist the children in linking their learning and prior knowledge.

The reading series, I don’t think does. I try to do that. If that, they don’t know what a pineapple is, then I bring in a pineapple, and teach them what it is. You try to give them the prior experience that they need.

Amy’s understanding of the curriculum was that some components were tiered and linked to prior knowledge, but some were not. She believed that the children made connections and linked to their knowledge through some of their experiences at school, especially with teacher support.

Yes, some are and some just begin a new topic. Sometimes I will find a kid saying something like ‘look a bug, bug starts with B,’ or they will see their shadow on the playground and this will cause them to recall what we learned about shadows a few weeks ago.

Amy’s examples indicated that her students were making some connections to what they were learning and were using the information in everyday situations. Her students were applying their learned skills and knowledge as they experienced the world around them.

The practice of linking new information to children’s prior knowledge was demonstrated on numerous occasions during observations. The following particular examples were noted.

Molly demonstrated the concept of building on prior knowledge during numerous activities and tasks throughout her daily routine. Here are a few examples:

- During science activities and the discussion of spring, she assisted the students in utilizing their prior knowledge by prompting them about what they knew about spring, such as the signs of spring and what those signs mean like, “What grows on twigs?”
- During a class discussion of a Chinese New Year picture, the teacher asked the students to discuss what the children in the picture were wearing and how that was different from our culture and what we wear on a daily basis.
- Vocabulary was also introduced during different activities and linked to prior knowledge such as discussing dinner and supper. Students were asked what they called the evening meal. Other synonyms, like run/race/jog, climb/shimmy, hop/frolic were discussed in the same manner as dinner/supper.

Susan demonstrated using prior knowledge techniques as well:

- Vocabulary words were discussed and reviewed throughout the day, especially when discussing the daily routine. For instance, the teacher asked “What does ‘prepare’ mean?” and the students responded, “to get ready.”
- Class discussions about animals allowed the students to use prior knowledge about what animals eat and where they get their food, as well as giving the students specific examples of the size of animals such as how big a crocodile was in relation to the floor.

Linking to prior knowledge was a rarity in Lisa’s classroom, but did occur a few times:

- When morning calendar was discussed; the teacher would prompt the students to think about yesterday’s date and today’s date.

- The teacher addressed concepts such as ‘warm’ and asked students to name things that were warm.

Prior knowledge techniques in Amy’s classroom were also uncommon. They could only be seen during:

- Calendar activities such as asking what day yesterday was and what tomorrow would be.
- During a class discussion about dinosaurs, where the teacher asked if a dinosaur would “quack” and the students responded “no.”

In this study, the two more experienced preschool teachers incorporated activities and techniques using prior knowledge in their classrooms on a daily basis. These techniques integrated a variety of activities including literature and math-based activities. These teachers linked current activities taking place in the classroom to events and activities that had taken place previously and in the children’s daily lives. They linked to these experiences to make learning more meaningful to the students. The two less experienced preschool teachers incorporated few prior knowledge techniques. Their observations did not indicate that they used children’s prior experiences to support them in making connections to what they were currently learning or knowledge gained in their everyday lives. As indicated with the previous examples, the two more experienced preschool teachers, used techniques incorporating prior knowledge more frequently and more consistently than the two less experienced preschool teachers.

Teaching students with varying levels of ability. Two of the four teachers indicated that they had students with very distinctive levels of ability ranging from special needs children with Down’s syndrome to children who were weak in achievement levels as compared with their peers. Although teaching students with varying levels of ability was not an interview question, it was a major concern for some of the teachers and they discussed it during their interviews. Both

Molly and Amy emphasized having students with varying ability levels. Lisa and Susan did not express any concerns about differing abilities in their classrooms during the interview. It is unknown if Lisa and Susan had students with differing abilities in their classrooms because they were not directly asked during the interview.

Molly and Amy discussed how they handled these challenges when structuring their lesson plans and during instruction. Amy had a child with Down's Syndrome and stated that she could not expect this child to perform in the same way as her other children. She made her lesson plans more general so that everyone could be involved in the activities.

Like I said before, how detailed some of them [Foundation Blocks] are and how in-depth they are for this level of students. Sometimes I think I can't expect my child with Down's syndrome to do the exact thing as my child who is accelerated in his learning. When I plan my lessons, I kind of plan them in general so that everybody can do [activities] instead of focusing on one or the other.

Amy was concerned about the Foundation Blocks and how she should incorporate them into her classroom, when her classroom had children with varying abilities. Her solution was to plan lessons that were very basic and general so that all the children could participate in the activity regardless of their ability. She did not make plans that focused on one specific child or another but created generalized written plans for the class as a whole. In other words, Amy did not differentiate instruction.

At the other end of the spectrum, Molly indicated that she accommodated students with varying learning abilities by supplementing or broadening the activities. She stated:

What I try to do is to do activities and do discussions that are open-ended enough that it can incorporate the developmental level on up to, let's say, expressive vocabulary or

receptive vocabulary level, that the youngest children can gain from as well as ask some more in-depth questions for the children that are able to take that several steps further... It's hard to individualize instruction for preschoolers as in sitting a child down and saying now we're going to do this today with you and we're going to do something entirely different with somebody else. I think that keeps the child that is not quite up to where some of the other are from feeling they are incapable or a failure, that sort of thing, but yet give the children that are ready to have more meat the ability to take that in. And I think children learn from each other, too.

When asked how she dealt with varying levels, Molly stated that she supplemented the curriculum with activities appropriate for children at different levels. She confirmed this by saying:

... I use more advanced ones [lessons] for the children that are able to go farther. For example, patterning. Some of the children are just beginning to grasp. patterning and can do the AB pattern. But some of them are real quick with that and can go onto the more advanced patterning like the ABC patterns or the AAB patterns and they can take that as far as their development allows.

During observations of Molly, the uses of different techniques for students with varying abilities were not demonstrated. Therefore, there was no observational data to support Molly's statements.

Amy created lesson plans that were generalized for the class as a whole, which she believed, allowed all the children to participate and be successful. Molly planned and implemented lessons that she believed would allow all children to participate and achieve success. Further, she varied individual activities depending on the children's abilities. There was

no evidence that Lisa, Susan, or Amy differentiated instruction to meet the unique needs of individual learners.

Learning through experiences. All the participants thought that preschool children learn best through experiences. They made reference to this in interviews, demonstrated it during classroom observations, or both. Lisa did not demonstrate any type of real life experience during observations; however, she did state that she tried to give students the prior knowledge they would need to succeed.

Amy believed that learning should incorporate children's interest and real life experiences.

We have 'open weeks' every so often. During these weeks, I work on topics that the children have shown interest in. For example we covered dinosaurs, space, animals, transportation, and community helpers last year even though they were not in the curriculum. The children had either asked about these topics, or shown interest during class. We took about a week to ten days to cover each of these topics in-depth. We even went on a few field trips to help back the learning.

In discussing her personal philosophy, Amy indicated that preschool children should be exposed to as many experiential opportunities as possible so that they could learn, especially if they were not getting these opportunities at home,

Molly concurred with Amy that learning activities should include real life experiences to support children in understanding what they were learning and to help develop a foundation of prior knowledge for new experiences. She believed this could be accomplished through hands on experiences in the classroom (as seen during her classroom observation where she brought

flowers to class for the children to examine and discuss) and through fieldtrips. She discussed the fact that the curriculum she used allowed for these experiences:

Houghton-Mifflin has a lot of class discussion-type activities where the children are asked specific questions about things like in the Animals Everywhere [theme], what do you think might be an animal you might see on a farm and that's how it assesses the child's prior knowledge. It gives [provides] you the opportunity to include fieldtrips to help and develop those hand-on experiences.

In addition to providing experiences to children at school, teachers often provided information, opportunities, and activities for parents to become involved in their children's education.

Social skills and social development. Social skills and development were mentioned in participant interviews and were demonstrated during the classroom observations. Some participants mentioned the importance of assisting preschoolers in understanding: (a) feelings, (b) how to interact with others, (c) dealing with conflict, and (d) how to behave in the classroom.

Lisa felt that these were important issues within a preschool classroom. As a matter of fact, it was one of the reasons she moved from being a first-grade teacher to being a preschool teacher. She stated, "...I wanted to do more of the social learning than the academic and reading learning." In addition, she added:

...when there are academics that we need to do, you know, the reading series we have and the Foundation Blocks, to set those up in a fun way so that they are learning, but still being social and being successful.

When encountering conflict between students who disagreed, she separated the two students, but did not address the situation with the students. She did not explain why their behavior was inappropriate or allow the students to express their feelings or concerns. She did not interact with

the students to assist them in developing their social skills. Lisa believed in social development and having fun but did not deal with or address social conflict when problems occurred. There was no match between her beliefs and her actions to assist the children in conflict resolution.

Susan, on the other hand, took great measures to deal with a problem between two boys. One of the boys dropped a hat from the loft, which was against the rules. She and the two boys sat in small chairs and discussed the situation. She asked them what happened, discussed it, and assured them that she believed that it was a mistake. However, neither boy would admit to dropping the hat. When the rule was broken, timeout was assigned in this classroom. Since neither boy would admit to breaking the rule, both went to timeout. After about a minute, Susan asked again but did not have any success. Therefore, both boys stayed in timeout.

Amy was observed teaching her students to take turns and wait to be called upon. They waited to take turns in selecting centers, taking turns during show/tell, and waiting to be called to line up. The concept of developing social skills was also supported in Amy's personal philosophy statement in which she said:

...It is important for me to help the children in any way I can and that doesn't just mean teaching them numbers, colors, and letters. It also means teaching them how to interact in situations, how to work through conflict, and how to be resourceful in many different situations.

Molly emphasized the importance of one person talking at a time when she asked the students to "Remember our rule - one person talking at a time." She also stated that the curriculum she used addressed a lot of social science issues that allowed the students to have class discussions. She stated during her interview, "Well, they have lots of scenarios that

children can discuss in the social studies area about working together, how other people feel when something happens to them, the social and emotional area...”

Providing structure and knowledge for social situations that occurred within a classroom was vital to support children in understanding how they should interact with each other, as well as how they should act within the classroom as a whole (such as allowing one person to speak at a time). By providing this knowledge to preschool-aged children and encouraging these practices within the classroom setting, these teachers hoped to provide students with a strong socially structured foundation by the time they enter kindergarten.

Theme: Perceptions about the Foundation Blocks

During interviews, the participants eluded to having mixed perceptions about utilizing the Virginia’s Foundation Blocks. Each teacher stated that she used the Foundation Blocks, but they monitored how the Foundation Blocks were being covered in different ways. Lisa stated that:

I go through them, probably not as much or as often as I should; but every month or so flip through and say ‘yes, that fits in here,’ or ‘I can put this in the calendar for the next month.’ I just make sure I am covering them. I think the reading series is aware of them so they built it in. So it’s already there. There are just a few that I need to kind of find a place for.

Amy monitored the implementation of the Foundation Blocks in a somewhat similar manner as Lisa, only referring to them occasionally. Amy believed that by following her regular routine she was covering all the Foundation Blocks on a regular basis. She stated that she was sure that the Foundation Blocks were being covered by:

Um. I guess, like I said before, I don’t really look to them to use them so I check them every once in a while to use them. But like I said before, I do the same routine almost

every day and I know that the Foundation Blocks are included in that routine, most of them are included in that routine, so by doing that routine I think I am fulfilling them and using them and plus, with the other curriculum, there's different things that help.

Molly believed that being familiar with the Foundation Blocks helped her to monitor state expectations regarding what the children should learn and experience.

Well just primarily, being familiar with the Foundation Blocks and what they are requesting the children to be exposed to and, at this point, these are not mastery type levels; they are exposure and foundation building, and I do like that about the Foundation Blocks. I think SOL testing and that sort of thing is very much overdone in the upper grades. I feel you can find out what the children know by talking to them on a daily basis and doing informal assessments, like PALS Phonological Assessment that we did in conjunction with VPI [Virginia Preschool Initiative] program.

During their interviews, the teachers indicated that they agreed that the Foundation Blocks covered important skills and knowledge within a preschool classroom, including academic subjects. Examples were given in some cases, such as Molly when she commented that she felt that all-important skills were covered and she went on to give some examples:

...With physical and motor development, that's one of the new ones they have added this year that the child participates in structured and unstructured physical activities to help build their strength, stamina. Too many of our children now spend their free time in front of the TV or using a video game. So we provide the physical activity in the gym or outdoors with structured games. Sometimes we'll play something that has a developmentally appropriate level of skill for them, like "Duck, Duck, Goose" or

“Musical Chairs”, those kinds of things. To help children learn that physical activity is enjoyable, and we don’t do a lot of the callisthenic type things.

Amy believed there were more Foundation Blocks than a preschool classroom should have to cover. She stated:

Actually, I think there is more in the Foundation Blocks than most preschool classes or in a day care or anything like that is using or does use. I think the Foundation Blocks cover more than you would expect for a preschool class to cover. Like measurement and math, adding and subtracting and things like that. Yeh, I know that kids can count and one, two and take one away and that’s one but, um, some of the kids here will never be able to do that so I guess for a specialized preschool classroom I feel like the Foundation Blocks are a little too much for this classroom, but there are children in here that can do it, so I just have to figure out a way to work it all in.

Amy felt that the Foundation Blocks were too advanced for some of her students, like her special needs child with Down’s Syndrome. She indicated that the majority of her students would be able to master the Foundation Blocks, but she needed to find a way to work in all of these standards with all of her students.

Lisa did not elaborate on how she covered the Foundation Blocks. When asked if she thought the Foundation Blocks covered all the important components for preschool, she said, “Um. I think so. They cover social, and reading and writing and math. I think so.”

The teachers stated that they did not have any difficulties in understanding or interpreting the Foundation Blocks. Their comments were fairly brief regarding this question. Lisa stated, “I don’t know them by heart. I would have to go through them, but in my experience, I have not had any trouble.” Amy said, “No, I don’t.” Molly articulated that in most cases she did not have

any difficulty in interpreting or understating the Foundation Blocks, but she gave an example of one of the Foundation Blocks that she found to be somewhat unclear.

In most cases, here is one that is not extremely clear but yet it's one that you can probably, most anybody who has been educated to be a teacher could come up with. Um. Play games that focus on listening carefully. That doesn't really give you a specific game, but that's the type of thing that you sometimes don't have a sample activity. Sometimes I would like for them to give a specific game or specific example of a listening game. I usually don't have too much trouble with that, but for somebody who is beginning teaching, that might be more useful information, so I am hoping that they will be revised and this type of thing will be included.

When asked if the teachers had support to assist them in asking questions, posing concerns, assisting with clarification, or interpreting the Foundation Blocks, some stated they had local support at the central office level. One stated that in addition to school site support, she also felt she could contact the state department with any questions or concerns. Amy stated that she could consult with her teaching assistant (paraprofessional).

Lisa stated that she utilized email to ask questions or express concerns to other preschool teachers regarding teaching questions. Also, she consulted with her district preschool supervisor for any administrative concerns. "If I have a teaching question then I go to other preschool teachers. If I have a more administrative concern, we have a supervisor."

Amy, on the other hand, stated that she asked her teaching assistants their opinion if she had any questions or concerns. "Well, I can always ask so, and so or so and so what they think, how they interpret it." She also stated that:

... I have a mentor in the building. She is Special Ed and she doesn't have to use the Foundation Blocks but I can always ask her. What [do you think they mean]? The principal and I can always call Central Office and ask them if I need to, but I have never needed to do that. We used these Foundations Blocks in our teaching at [university pre-service teaching program] and actually in teaching had to use the Foundation Blocks, so we got pretty, like drilled in our heads.

Molly commented that she felt that she could contact the Virginia Department of Education as well as ask colleagues at her building site:

Well, the State of Virginia has [DOE representative], who used to be in charge of the VPI programs and now [DOE representative], I think is the one that is in charge of the preschool program. If we had questions about the implementation, they have been very, very good to work with to give us ideas of things we could do in the past. I know that when we started this VPI grant, [DOE representative] was very, very helpful, any question that we had about anything in the program. And then since the Foundation Blocks have come out, her phone number also was one that was given as someone who could clarify any questions you might have.

When asked about local support, Molly commented that the other preschool teachers at her location were very supportive and often shared ideas:

Well, we share ideas with each other all the time, if someone has a question, they can ask, 'What do you do to implement this or that in the curriculum?' We are very fortunate 'cause everybody is willing to share ideas, materials, etc. I think it would be more difficult if we didn't have that openness with each other...

The teachers similarly noted that it was a good idea to have guidelines and some structure for preschool classrooms across the state. However, they were emphatic that the Foundation Blocks should serve as a course of action rather than the basis for testing of children.

All participating teachers believed that the Foundation Blocks should be used to provide exposure to the knowledge and information written within the standards but that preschool children should not have to master the standards. The standards should only provide an introduction to the concepts being taught.

Amy felt that the Foundation Blocks were helpful in structuring lessons and assuring that lessons were taught so that children could benefit through understanding, comprehending and retaining the information. When asked about the positives of the Foundation Blocks she stated:

They help structure your lessons; they help you know what you are supposed to be doing, and then you can look at the Foundation Blocks and say, ‘okay I taught a lesson today on tadpoles. Did I cover any of these or did I not cover enough of them?’ Helps you look back on your lessons or look forward before you even teach a lesson and make sure you are teaching it in a way that the kids will understand and comprehend it, hold it and retain information ...

Lisa also felt that the Foundation Blocks were beneficial in making sure that preschool teachers taught the same content. “I think it helps us to not just be a daycare, that we have these goals and things that we all want to keep standard across the county.” She also stated:

The only negative would be if somebody were to think that they [children] were to have mastered these skills. Not every four-year-old is ready to master. I am looking at this, printing 5-8 letters, or using inventive spelling to write a story. That is not developmentally appropriate for everybody.

When the teachers were asked if the Foundation Blocks were a determining factor in the selection of their preschool materials for use, only one of the teachers, Molly, actually knew. She stated that:

Yes. It influenced our choice a great deal because the Virginia Preschool Initiative had suggested that every preschool funded initiative have a curriculum [a purchased program from a textbook manufacturer] and that it be correlated with the Foundation Blocks, so that was one of the things we looked at also, and Houghton Mifflin [a preschool program purchased from a textbook manufacturer] was very well coordinated with the Foundation Blocks in literacy and math the first year that we adopted it. They have since expanded that to include social studies, science, and more of the math than what we first had.

Lisa was not sure if the Foundation Blocks were used as a factor in the selection of materials for their curriculum since she was not a preschool teacher at the time the materials were selected. When she was assigned to be a preschool teacher she stated that she did not have a say in the selection of the materials being used.

I am trying to think if, I was in preschool when they adopted Houghton Mifflin series so I wasn't familiar with the Foundation Blocks at that time. And when they did adopt for preschool and I was in preschool, I didn't have any say.

Amy was not sure if the Foundation Blocks influenced the selection of their curriculum. She stated, "We do have to follow them, but I am not sure if they were a factor in selecting the curriculum since I did not pick it."

Participants indicated that they believed the Foundation Blocks did correlate with kindergarten SOL through statements like, "Yes, I do" (Molly), "I would have to look at them, but probably, yes. They may overlap in some areas, and what I am thinking, it's been a lot of

years since I was in [taught] kindergarten” (Lisa). Amy stated, “Yes, I do. I think they are very similar. Since I taught kindergarten and I had to use the kindergarten SOL, I see a lot of similarity in the Foundation Blocks, I do.”

Teachers agreed that the Foundation Blocks incorporated important skills and knowledge that preschool children need to know. Even though support systems varied teacher to teacher, all the teachers indicated that they had some type of support system if they had questions or needed clarification regarding the Foundation Blocks.

Participants all agreed that the Foundation Blocks correlated with kindergarten SOL. However, they did not feel that the students should be tested on the Foundation Blocks, as was the case with SOL in some elementary grades. They believed that the Foundation Blocks should remain standards but should not be used as a method for standardized testing.

Foundation Blocks should never be tested like SOL. Currently, the SOL are learning standards for grades K-12 upon which children are tested to assess progress, as well as the progress of schools and school districts in the Commonwealth of Virginia. The Foundation Blocks have not yet reached this level of accountability and the teachers in this study did not think that they should.

Molly stated that there were positives to the Foundation Blocks and not any negatives, as long as they were not mandated for testing.

As I said earlier, as long as it’s not mandated that you have to test these children. I just don’t feel all this testing is good, especially lower elementary children, I am not sure it’s real good for the older children, as much as we do it. I do think we need testing to evaluate and to inform us of other ways that we could increase the effectiveness of our teaching. But to have a child’s future hinge on one test, I don’t like that idea.

The interviewer asked Molly to clarify her point and she stated:

...if you scored 25 out of 50, you are not doing well. Not that type of assessment but to know where the children are. As I said, I think preschool is developmental and to compare a child who has not had the opportunities, maybe that some others have had, is not fair and is not doing justice to the child. But I do think that the Foundation Blocks give everybody some structure and the same understanding of what children need. So that they can move across the state to another preschool program and know that they have been exposed to the same skills and curriculum information.

Lisa felt strongly that the Foundation Blocks should not be turned into SOL. She added at the end of the interview, when asked if she had any other comments,

I can't think of anything. I don't know what your take is on the Foundation Blocks, but I just feel strongly that they be a recommendation, a goal to cover and exposure to them and we not turn them into SOL. And that we not develop a report card based on them... I think that [a report card] is saying that they are going to master it.

As indicated in the interview responses above, participants felt very strongly that the Foundation Blocks should not become structured or rigid and should not be used for assessments. Their concern was that the Foundation Blocks not be treated like SOL, at other grade levels, where testing is mandated.

Preparing children for kindergarten. Participants were all in agreement when asked if they felt the Foundation Blocks were preparing children for kindergarten. Amy said,

Yes. I do. I think, it also helps them get ready for kindergarten because in kindergarten they learn, they start following SOL. They don't have to test on them but they start them,

so the Foundation Blocks are preschool's way of SOL. They are almost identical. They are very similar.

Lisa concurred when asked if she felt the Foundation Blocks were preparing children for kindergarten. She stated that,

In a way that they have been exposed to it and the kids in our program have not necessarily been exposed to these things before coming to kindergarten. Where some families just cover these things naturally.

Molly strongly agreed that the Foundation Blocks were preparing children for kindergarten. She affirmed by saying:

I think that the Foundation Blocks are a very strong support for kindergarten. I think one of the things that were said at the beginning, when we first started doing these Foundation Blocks is that the kindergarten SOL would be looked at so that we were making sure that we were providing the foundation for what they would need to be able to succeed in kindergarten.

The participating teachers all agreed that the standards were valuable tools to prepare their students for kindergarten. They agreed that the Foundation Blocks provided opportunities for all of their students. The Foundation Blocks exposed students to concepts and areas of knowledge that the students may not otherwise be exposed to prior to kindergarten. This gave them a foundation in which to build and grow once they entered kindergarten.

Although the participants believed that the Foundation Blocks were preparing children for kindergarten, none felt that the kindergarten teachers were aware of the Foundation Blocks. Further, none of the participants actually participated in year-end articulation meetings with the

kindergarten staff. Being a first-year teacher, Amy was not sure whether or not there would be an articulation meeting with kindergarten teachers at the end of the year.

Once again, first year teacher, I don't know. I'm learning but I think we have a meeting where I sit down and say I think this child will need special assistance and will get lost in the shuffle if they don't have someone in the room with them paying them extra attention, or this child and this child should not be together because they can't handle being in the same room together or things like that. And then, I believe, [certain children] can or cannot or still need work on, can do and what they still need work on. So it might be a good time to bring up the Foundation Blocks and to let them know I have them and then maybe because I am the only preschool teacher. I don't collaborate with anybody and I have a hard time knowing if I am doing everything I should be doing or not.

Molly considered the fact that preschool teachers in her school did not have an end-of-year articulation meeting with kindergarten teachers to be an area of weakness. She stated:

That's one of the areas of weakness, probably; that we have is that we don't have a long enough meeting or enough meetings maybe with the kindergarten teachers to specifically cover these Foundation Blocks and that sort of thing. Primarily, what we have done is get input from kindergarten teachers, back to us, as to what we can do or areas they see the children need more activities to be ready for kindergarten.

Participating teachers agreed that the Foundation Blocks prepared students for kindergarten. In addition, they agreed that the standards were valuable tools and would create a strong foundation for students to build upon in kindergarten. Even though these teachers believed they were valuable for kindergarten readiness, they did not collaborate with kindergarten teachers to provide valuable information for upcoming kindergarten students.

Quantitative Data

Although the research conducted on this study was basically qualitative, there was one component, the participant survey (Appendix C), which was considered quantitative in nature. Participants completed a survey in which each teacher rated herself as to her level of proficiency in many professional developmental areas. (The complete results are in Appendix D) Information obtained from this survey included the teacher's educational background, years of experience, level of education, and professional development training in pre-literacy skills, fine and gross motor skills, knowledge of the development of young children, and academic knowledge such as the Foundation Blocks, articulation, building vocabulary and incorporating thematic units into the curriculum.

The survey ratings did not necessarily relate to what was seen during classroom observations or what was discussed during the interviews. Therefore, the survey ratings will be compared by subtopics to the classroom observations and interviews.

Pre-reading. The first of these areas was implementing pre-reading skills, which included phonological awareness, print awareness, concept of word and letter recognition. The Foundation Blocks document emphasized the importance of these skills:

Reading begins early with the connection that print and sound are related, and occurs through daily experiences predictive of early success in reading. Phonological awareness or the ability to notice and manipulate sounds in spoken language includes alliteration, or identifying the same beginning consonant sounds in a group of words, recognizing and producing rhymes, and segmenting, or separating individual syllables into sounds.

Through these kinds of daily routine activities, young children begin to develop initial

understandings about reading and how it relates to their surroundings (Virginia Department of Education, 2007, p. 9).

Molly and Amy rated themselves as having significant proficiency in providing pre-reading skills within the classroom. Susan and Lisa rated themselves as having extensive proficiency in implementing pre-reading skills in the classroom. Molly and Susan were the most experienced teachers but only Susan gave herself the highest rating on the survey. Amy was the least experienced teacher and she rated herself as being extensively proficient in implementing pre-reading skills.

However, observations provided insight into exactly how pre-reading skills were utilized within the classrooms. Susan and Molly (the most experienced) demonstrated and incorporated pre-reading skills techniques throughout the day. However, Lisa and Amy differed in that they were not observed providing pre-reading experiences within the classroom.

Pre-writing. Implementing pre-writing skills such as allowing children to write, even if they just scribble or draw is also an imperative skill to foster in preschool classrooms. The Foundation Blocks noted their importance.

Through early writing experiences, young children develop understandings about the functions of written language. Children develop an awareness that ideas can be written. They begin to generate ideas about how written language works and explore its uses. Young children's attempts to write through scribbling, forms, and inventive spellings help them to understand writing as a means to communicate ideas and information. Over time, attempts at early writing will more closely align to conventional writing (Virginia Department of Education, 2007, p. 16).

All the participants rated themselves as being significantly trained and prepared to implement these skills. None of these participants rated themselves as having extensive (the highest rating) proficiency in this area.

Few pre-writing skills were utilized in activities for children as seen during observations of Molly when the children were in centers. Although the other participants were not observed using pre-writing activities with the children, they all modeled the concept of writing to their children during whole class activities.

Fine and gross motor. Writing, drawing, painting, and cutting are only a few of the fine motor skills that are taught and or implemented in preschool classrooms. Initially, the 2005 version of the Foundation Blocks did not include fine and gross motor skills. In the 2007 revision, the importance of these skills was recognized and incorporated. Virginia Department of Education Foundation Blocks document states:

The brain and body's movement and learning systems are interdependent and interactive with body movements. Gross and fine motor movement experiences provided at the preschool level need to be structured to encourage a child's brain to use the movement experiences as building blocks for future learning. Within the preschool daily schedule there should be strong emphasis on both gross and fine motor development activities. Outdoor and indoor physical activity should be an integral part of the curriculum and should be viewed as an opportunity for learning. If children are provided with positive movement experiences at an early age they may later choose to participate in physical activities and stay active for a lifetime (2007, p. 43).

Again, all the participants rated themselves as being significantly trained or skilled in the area of fine motor skills. No participants rated themselves as having extensive training in providing fine motor skills in the classroom.

Classroom observations only yielded some evidence of fine motor skills within each of the classrooms. These fine motor skills included painting or utilizing a writing center.

Only three participants rated themselves in the gross motor category. The fourth participant, Susan, did not rate herself. This may be due to the fact that her children go to a physical education (P.E.) teacher for physical/gross motor activities and she does not typically implement them. Molly and Amy rated themselves as being significantly trained. Lisa rated herself as only having a limited amount of knowledge and skill in this area.

Gross motor skills training was witnessed often during all of the participants' classroom observations. The gross motor skills activities tended to include the following: running, jumping, skipping, hopping, and riding tricycles. These activities took place outside the classroom, mostly in the gym.

Cognitive development. Cognitive development of young children is often categorized by stages and identified based upon Piaget's theories of development. Most often, teachers become aware of and are educated in developmental theory in their educational training programs. One might expect teachers to rate themselves rather highly in this area since it is typically a part of teacher preparation.

However, only Lisa considered herself as having extensive knowledge of the stages of cognitive development. Molly, Amy, and Susan, including both the most and the least experienced preschool teachers, each judged themselves as having a significant amount of knowledge in this area.

Learning centers. Learning centers are an integral part of the preschool classroom. The utilization of these centers allows children to explore their understanding of the concepts they are learning as well as the world around them as noted by Piaget, Vygotsky and Rogoff in earlier chapters. Learning centers are often specifically addressed within the Foundation Blocks under sample activities for each of the standards. As indicated in the qualitative findings of this research, the participating teachers utilized learning centers in a variety of ways. They allowed children to be creative, imaginative, and to explore a variety of realms of learning.

Amy and Lisa rated themselves as being extensively trained in learning centers. Molly and Susan rated themselves as significantly trained in the area of utilizing learning centers. The two experienced teachers rated themselves as having lower levels of knowledge of learning centers than the two teachers with the least amount of preschool experience.

Each of the teachers, regardless of years of experience, utilized and implemented learning centers on a daily basis. These learning center experiences were noticed and recorded during classroom observations.

Understanding the importance of play. As discussed earlier in this chapter, play is an important component of preschool aged children's learning. Play was recognized as an important factor within the Foundation Blocks as well. Play is specifically named in the Foundation Blocks in the areas of writing (literacy), block play (mathematics), similarities and differences (history and social science), location (history and social science), world of work (history and social science), and citizenship (history and social science).

All of the teachers rated themselves as very knowledgeable in the area of play. They each rated themselves as having extensive training in understanding the importance of play.

The survey ratings were in keeping with the observations in that the participating teachers knew how to incorporate play in the curriculum. This was noted in classroom observations. Further, play came out as a significant theme (as previous discussed) throughout the study in both interviews and observations.

Age-appropriate discipline. Implementing appropriate discipline in the classroom was acknowledged under the category of social development based upon the qualitative findings. It was also identified within the text of the Foundation Blocks under the History and Social Science standard as: “The child will participant as a member/citizen of a classroom community” (2007, p. 32) and under the Physical and Motor Foundation Block as: “The child will demonstrate good listening skills and cooperative behaviors” (2007, p. 44).

Molly, Amy, and Lisa all scored themselves as having extensive knowledge in implementing appropriate discipline. Susan did not rate herself on the survey under this category.

Susan notably handled discipline by talking one-on-one to the students and appeared to effortlessly assist students in resolving conflicts or discipline issues within her classroom. Lisa was the only other participant who was observed handling a behavior conflict. Based on that observation, she did not explain to the children why their behavior was inappropriate or allow them to express their feelings.

Classroom environment. Each of the participating teacher’s classrooms were almost identical with regard to what items and centers were included within the classroom as well as where classroom items were placed. For example “it is essential to locate the block center away from high-traffic areas, even in small classrooms” (Tunis, 2009, p. 4).

Three of the teachers rated themselves as having extensive training. However, Susan rated herself as having significant training.

The observational data supported their answers. Each classroom incorporated height appropriate furniture and fixtures, and similar age-appropriate learning materials and supplies. Every classroom included learning centers, a central meeting area in the classroom, storage areas for books and learning materials, and areas for the students to store their personal belongings in appropriate locations.

Kindergarten collaboration meetings. Collaboration meetings are a necessary task in order for kindergarten teachers to understand what knowledge their incoming students will bring with them and to understand which of their children have or have not attended a preschool program. Kindergarten teachers often find it “challenging for children who had not attended preschool programs, where they learned basic academic content and practiced tasks like holding pencils and cutting with scissors” (Goldstein, 2008, p. 255).

All four teachers provided survey responses indicating that they had significant proficiency in holding collaboration meetings between preschool and kindergarten teachers. In providing this response, they indicated that they all have significant knowledge and training in the category of participating in collaboration meetings.

None of the participants held collaboration meetings with kindergarten teachers. This was indicated during each of the teacher interviews.

Parent involvement. “Involving parents and caregivers during the powerful early learning years from birth to age 5 gives young children an equal chance at success” (Fielding, 2006, p. 32). Parent involvement has been proven to assist children in becoming successful as indicated in the former statement.

According to the survey responses, the participants all specified that they were significantly trained in involving parents in their child’s education. No one considered herself as having extensive training in this area.

Teacher interviews and observations did not provide any data regarding parent involvement. Therefore, there was no evidence of parent involvement to compare to the teachers’ rating on the survey.

Preschool assessment. Assessments are also an integral part of preschool classrooms. Assessments are used throughout the school year to determine the growth and progress that a child is making.

All participants responded on the survey that they had been significantly trained (except Molly who felt she had been extensively trained) for implementing assessments for preschool-aged children. The participants used these assessments to determine the progress of a child across the year.

Preschool assessment was not observed during the participants’ classroom observations. The only comments made (as have been mentioned before) during the interviews were that the participants did not feel that the Foundation Blocks should be used as a form of assessment, like the SOL are used in grades K-12. Therefore, the data for this category relied solely on the participants’ responses on these surveys.

Social development. Social development and skills were also considered very important within a preschool classroom, as indicated by the participants and by Virginia Department of Education Foundation Blocks.

Research has established a compelling link between personal and social development and school success. The personal, social, and behavioral competence of young children is a strong predictor of academic performance in the early grades. Appropriate and supportive learning experiences provide an important foundation for personal and social growth (2007, p. 57).

In order to demonstrate appropriate socialization, teachers must be role models for the students. For example, “Model appropriate styles of communication with children and adults” (Virginia Department of Education, 2007, p. 57).

Survey responses indicated that all participants, (except Susan, who rated herself as significantly trained) rated themselves as extensively trained in understanding how to be a role model for children. Being a role model for children is also an important trait for preschool teachers to demonstrate within their classrooms.

As witnessed during classroom observations, the participating teachers did demonstrate appropriate socialization skills to their children. They served as role models for their students and tried to encourage their students to work together, and play together, and to get along with others.

Thematic units. Thematic units are often part of a preschool curriculum. Preschool teachers should know how to create and implement them into their daily learning routines. The Foundation Blocks provided numerous theme ideas within the standards. An example of a theme could be life processes and what makes plants grow (Foundation Blocks, 2007, p. 28).

All of the participants' survey ratings except Susan considered themselves as being extensively trained. Susan considered herself as having significant training.

All the teachers seemed to be competent to execute themes within their curriculum. Susan may have under-rated herself on the survey. Her strong ability to coordinate activities with themes was noticed throughout observations in her classroom.

Vocabulary. “Good teachers embed instruction in activities that make sense to young children. They teach vocabulary, for example, by systematically using and reinforcing the meaning of new words in the context of everyday activities” (Stipek, 2006, p. 1). The Foundation Blocks also highlighted vocabulary. “The child will develop an understanding of words and word meanings through the use of appropriate vocabulary” (Virginia Department of Education, 2007, p. 12).

When responding to this question on the survey, Amy, Lisa, and Molly rated themselves as having extensive training on the topic of using vocabulary in the classroom. Susan rated herself as having significant training.

As indicated in the qualitative findings section of this chapter, Molly and Susan appeared to implement more vocabulary building skills than did Amy or Lisa. Molly and Susan took every opportunity to incorporate vocabulary throughout the day in a variety of different activities such as reading books to the children, classroom discussions, science activities, and math activities.

Literacy skills at home. “Parents are children’s primary teachers and preschool programs should educate parents and involve them in their children’s development to further improve learning during the preschool years” (Committee for Economic Development, 2006, p. 4). All the participants indicated that they were significantly trained in this area except Lisa who rated herself as being extensively trained.

Observations and/or interviews did not yield any information on the topic of helping parents to build literacy skills at home. Therefore, there was not evidence to compare the participant’s responses to their survey.

Reading methods. Implementing appropriate methods when reading to children was critical when establishing a foundation that implements reading skills and encouraged children to love to read. The Foundation Blocks state:

Young children begin to understand there is a correlation between spoken and written words by following the print as it is read aloud. An understanding that reading and writing are ways to obtain information and knowledge, generate and communicate thoughts and ideas, and solve problems is developed as young children routinely and consistently experiment with exploring books and print (Virginia Department of Education, 2007, p. 15)

The participants all rated themselves as being extensively trained, except Amy. She considered herself as being significantly trained in the area of implementing appropriate reading methods.

The teaching of literacy skills was seen during the classroom observations of each participating teacher. During read alouds, the teachers implemented strategies such as prediction, asking comprehension questions, and linking to children’s prior experiences. Observations

reflected that this practice was used more in Susan's and Molly's classrooms than in Amy's and Lisa's classrooms.

Scaffolding. The Foundation Blocks define scaffolded instruction as “Instruction in which adults build upon what children already know and provide support that allows children to perform more complex tasks” (Virginia Department of Education, 2007, p. 60). Molly, Amy, and Susan rated themselves as being significantly trained in the area of scaffolding. Lisa rated herself as being extensively trained in the area of scaffolding instruction. Scaffolding was not modeled during any of the participants' classroom observations. A possible explanation would be that the term “scaffold” was defined differently by the participants as compared with the creators of the Foundation Blocks.

Overall survey ratings. The survey provided information about the levels of knowledge and training the participants perceived that they had received. All the participants rated themselves with having extensive or significant training in all the areas on the survey with the exception of one area. Lisa indicated that she had limited knowledge and skills in implementing appropriate gross motor activities.

Summary

The four participants in this study provided much insight into their interpretation and implementation of the Foundation Blocks. Through observations, surveys, and interviews, it was revealed that these teachers, situated in different localities of the state, commonly interpreted and implemented the Foundation Blocks in similar manners. Data were collected on levels of education, professional development experiences, and the number of years taught for each of the participants. Although these individual facets were very similar for all participants, they did vary in years of experience, which ranged from a beginning teacher to a teacher with more than

twenty years of service. Participants tended to state similar perspectives related to theory-based areas such as the importance of play, emergent literacy, spatial reasoning, and the importance of scaffolding instruction. However, scaffolded instruction was presented by the participants more in the form of linking to student's prior knowledge than in the actual technique of scaffolding. The participants all indicated the importance of preschool and creating an atmosphere that was fun and exciting for the students by incorporating learning centers, creative activities, and learning experiences for the students, as well as making learning relevant. The participants' instructional strategies included regular daily routines that involved circle time activities such as calendar, weather, and music and movement. Each of the teachers indicated that they worked with children that had varying levels of ability. They said that they provided as much hands on and real life experiences as possible, through fieldtrips and classroom experiments. In addition, the teachers assisted their students in learning appropriate social skills and enhancing their social development.

With regard to the Foundation Blocks, the teachers felt that these standards were valid tools for assuring that Virginia preschool teachers addressed the same skills and prepare their students similarly for kindergarten. They also emphasized that they did not feel the Foundation Blocks should be translated into formal assessments for preschool.

Chapter 5

Discussion

Preschool has been in existence for many years. However, it has only been within the last decade that preschool has been publicly funded and recognized as a vital factor in educating children. Many factors, as seen in previous chapters, not only contributed to the educational foundation of children but also have important implications on society. These implications include “better educational, employment, criminal and social outcomes” (Committee for Economic Development, 2006, p. 3). In order to “reap the benefits” of preschool, the State of Virginia created preschool standards that work in conjunction with the state’s Standards of Learning (SOL). These standards are known as *Virginia’s Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds* (Virginia Department of Education, 2007).

To date, the only research involving Virginia’s Foundation Blocks was a study completed by Mark R. Allan entitled *Qualitative Study of Kindergarten School Readiness and Personal and Social Development*. His study examined the personal and social development of children as they entered school and how these factors contributed to children learning in the kindergarten classroom. In comparison to Allan’s study, this research differed, in that it examined the Foundation Blocks and how they were incorporated in preschool classrooms. Therefore, this research was unique in pioneering a study of the Foundation Blocks and how they were interpreted by teachers and implemented in Virginia preschool classrooms.

There were four major purposes for this study. These purposes were to: (a) understand what instructional strategies preschool teachers utilized and how they were implemented in preschool classrooms, (b) understand what early childhood theories were reflected in classroom

practices and how teachers interpreted these theories, (c) determine ways in which educational backgrounds influenced preschool teachers' pedagogy, and (d) determine if school settings (a preschool center or an elementary school) had an affect on the implementation of Virginia's Foundation Blocks in the classroom.

In this chapter, answers to the research questions, implications for practice, and suggestions for further research will be addressed. To attend to each of these topics, this chapter has been divided into four specific sections. The first section will address the research questions. The second section will provide conclusions from the overall study. The third section will present implications for practice. The fourth and final section will outline recommendations for further research studies.

Research Questions

The results of this study provided numerous insights into the creation, interpretation, and implementation of Virginia's Foundation Blocks as well as their connection to Virginia kindergarten SOL. As prior research by Newman and Roskos (2003) indicated, there are "five critical features particular to early childhood...standards: skill-focus, research-based, clearly written, comprehensive, manageable..." (p. 16). As set forth in this chapter, it can be concluded that each of these five features were incorporated into the construction of the Foundation Blocks.

The Foundation Blocks were created and revised so that they could be skill focused, by concentrating on four core academic areas (literacy, math, science, and social science), while concurrently incorporating physical/motor development, as well as personal/social development. In the Foundation Blocks document, each academic standard includes an introduction that explains and references related research that supports the importance of that subject area. The Foundation Blocks for each standard were clearly identified and followed by expectation

indicators and sample activities to assist the teacher in “planning...meaningful classroom activities” (Virginia Department of Education, 2007, p. 7). Therefore, the Foundation Blocks were concise and easily administered.

Insight and analysis from the data collected in this research offered answers to the study’s four research questions. These questions have been outlined individually.

Research Question 1: What instructional strategies do preschool teachers utilize and how are they implemented in preschool classrooms?

The four teachers, who were observed in this study, implemented a variety of instructional strategies within their classrooms. The study included two teachers with fifteen plus years of preschool experience and two teachers with very little experience in preschool. The more experienced preschool teachers were comparable in many ways as were the two less experienced preschool teachers.

All of these teachers did share commonalities in activities that were consistent in all of the classrooms. The teachers’ daily routines were quite similar in that they all included:

- calendar/weather activities
- fine motor activities
- gross motor activities
- center time
- story time

Although the activities were similar, it appeared from the data that the delivery of instruction was far more detailed in the classrooms of the two experienced teachers. This will be addressed in detail with regard to research question number two.

The more experienced preschool teachers implemented numerous strategies and techniques within their daily instructional activities. They encouraged children to participate in, discuss, and experience what they were learning. They demonstrated this by:

- asking probing, higher-level questions throughout various activities during the day
- connecting prior learning to current learning
- incorporating vocabulary learning strategies into various subject areas
- bringing real life experiences into the classroom
- recognizing and addressing varying ability levels of students within the classroom
- encouraging students to discuss and talk about their learning experiences

These teachers possessed pedagogical characteristics that were nurturing, caring, and enthusiastic. Their expectations were high and felt that they provided the best education possible to their students.

The newer, less experienced preschool teachers incorporated some different pedagogical methods. They

- incorporated “show-and-tell” into their daily routines
- asked questions that were at the basic knowledge level of Bloom’s Taxonomy
- asked questions only during “show-and-tell” activities
- often asked but then answered their own questions

The fact and possibility that these two teachers would both conduct “show-and-tell” activities, and that this would be the only time that questions were asked of students was very unexpected and highly improbable. However, it did occur. The researcher can only speculate as to why the exact same method was used by these two different teachers. Perhaps the teachers remembered participating in “show-and-tell” when they were preschool-aged children; perhaps

they observed “show-and-tell” activities as student teachers or possibly, they were taught in their teacher preparation programs that “show-and-tell” activities were an appropriate avenue to ask questions of preschool-aged children.

During classroom observations, none of the four teachers differentiated instruction or assisted children with complex task levels using scaffolding. Although two of the teachers mentioned having children at varying levels and acknowledged that children do not all learn at the same pace, there was no evidence of differentiating instruction during classroom observations. One of the more experienced preschool teachers discussed the importance of determining the individual knowledge base of children and connecting learning to prior knowledge; however, there was no observational data that supported this belief in practice. One less experienced preschool teacher agreed that she had children in her classrooms at different levels, however this teacher did not believe that all of the children would be able to master the Foundation Blocks. The other two preschool teachers did not express concern about varying levels in their classrooms. Since this was not a specific research question or a focus of the interviews, it was not possible to examine possible varying levels among the children in these teachers’ classrooms or the existence of differentiated instruction. One teacher noted that she addressed differentiated instruction by targeting lesson plans towards the lowest learning levels of her students so that all the children could participate. By focusing on the weakest links in her student groups, this teacher created a learning environment centered on low student expectations. The ‘dumbing down’ of lesson plans in this classroom left no opportunity to challenge students to excel to their highest possible potential.

Teachers also discussed the importance of scaffolding instruction for students but data did not support the idea that they included this technique in their pedagogy. This could be due to

the limitations of the study, since there were only three days of observations. Molly and Susan demonstrated linking learning to prior knowledge, but did not take children to higher, more complex levels. There was no evidence that any of the teachers understood or used scaffolded instruction, even though they considered themselves as being extensively trained in this type of instruction. The teachers' definition of scaffolded instruction differed from the definition found in the Foundation Blocks. The Foundation Blocks defined scaffolded instruction as "instruction in which adults build upon what children already know and provide support that allows children to perform more complex tasks" (Virginia Department of Education, 2007, p. 57). The teachers' definition of scaffolded instruction was simply linking prior knowledge to new concepts. It appeared in the data, that they lacked the understanding that children should be provided support to perform more complex tasks.

The four teachers in this study implemented various instructional strategies during the three days of observations. Interestingly, the two more experienced preschool teachers engaged their students in higher order thinking through questioning techniques as compared to the two less experienced preschool teachers. Even though linking to prior learning was noted in the more experienced teachers' classrooms, none of the teachers were observed using scaffolded instruction as defined by the Foundation Blocks. Holzman defined scaffolded instruction as, "A classic 'scaffolding-type' zpd [zone of proximal development], in which the more capable adult aids the less capable child to go beyond her developmental level and create new learning" (2009, p. 113). Hsin and Wu (2011) stated that according to Wood, Bruner, Ross (1976):

...to assist a child to complete a difficult task, adults can provide scaffolding that fulfill one of the following tutoring functions: (a) initiating and maintaining the child's interests in a task, (b) decreasing the number of unnecessary movements in order to ensure a task

is manageable for the child, (c) keeping the child in the right direction of achieving the task, (d) pointing out discrepancies between what the child do [sic] and what might be a correct solution, (e) controlling the child's frustration during a task, and demonstrating solutions to a task (p. 658).

There was no evidence of any of these scaffolding supports in the classrooms in this study. Although teachers commented that they were well trained regarding this theoretical construct, scaffolded instruction was not observed during the data collection period. It is unknown whether or not the teachers actually used this concept in their teaching practices; however, they were each observed for three full days with no sign of scaffolding. Perhaps the teachers understand this construct well enough to talk about it in the abstract during interviews, but not well enough to implement scaffolding in the classroom. Or perhaps the teachers actually do incorporate scaffolded instruction but it was not demonstrated during the three days of observations. According to Pentimonti and Justice (2010), "Previous research has resulted in similar findings regarding teachers' difficulty with accurately calibrating their knowledge..." (p. 246).

In conclusion, even though the four teachers conducted similar daily activities during classroom observations, they varied in their instructional strategies. The two more experienced preschool teachers demonstrated activities that connected prior knowledge to instruction. They also incorporated new vocabulary, recognized varying ability levels and encouraged students to discuss and talk about their learning experiences by asking higher-level probing questions. However, the two less experienced preschool teachers did not link prior knowledge, incorporate new vocabulary, did not encourage students to discuss their learning experiences, and only asked basic knowledge level questions during "show-and-tell" activities. None of the four participating teachers differentiated instruction or assisted children in completing complex tasks by using

scaffolding. Scaffolded instruction is an important educational strategy to implement during classroom activities. The teachers recognized its importance and discussed it during their interviews. However, they failed to follow through with this instructional strategy during observations. Preschool teachers, have many opportunities to integrate scaffolded instruction into daily practices. These opportunities could occur anytime during the day. However, opportune moments would include center times, when preschool teachers are interacting with individual children to evaluate their levels of knowledge, or during small and large group activities when openings occurred. All preschool teachers should incorporate age-appropriate theory-based instructional strategies, especially scaffolded instruction during their daily teaching practices. Teachers trained in scaffolded instruction should be knowledgeable enough to recognize moments of opportunity in which to assist students in reaching higher levels of complexity.

Research Question 2: What early childhood theories are reflected in classroom practices and how do teachers interpret these theories?

The research findings were unique in that they revealed that all the classrooms in this study were almost identical to each other. The teachers conducted daily activities, and created classroom environments so similar, that classroom photographs could really be switched without reflecting any meaningful differences. The daily activities and routines of each classroom basically consisted of starting the day off as a whole group and discussing the calendar and weather. This was followed by literacy activities that generally included story time, letter recognition, and phonemic analysis. Individual teachers' schedules varied as to when gross/fine motor activities, center time, and music/movement occurred during the day, but these activities were always included within the daily routines. These specific commonalities peaked one's curiosity as to why and how they came to be so much alike. To gain a better understanding, this

researcher must reiterate how early childhood education (kindergarten) actually began. During this study, the researcher discovered that early childhood theories began much earlier than the notable theories of Piaget and Vygotsky. Many of the current early childhood practices actually began in the early 1800's.

“Have you ever led circle time? Have you ever used manipulatives or other educational materials? Have you ever discussed early childhood education with women colleagues? Does your school or center have a kindergarten? If you answered ‘yes’ to any of these questions you have Friedrich Froebel to thank” (Moore, 2002, p. 15). Fredrick Froebel was primarily responsible for a large portion of early childhood practices in classrooms today (Moore, 2002). Froebel created the concept and name for kindergarten. In addition, he was credited for introducing many of the materials and concepts used in preschool classrooms today. “The kindergarten represented ... the natural world through educational playthings, or ‘gifts’: a ball was the symbol of wholeness, and blocks and sticks showed the various ways that the whole was constituted through its parts: numbers, fractions, geometry, patterns” (Allen, 2006, p. 174).

An example, and one of the most recognized contributions that Froebel made to early childhood classrooms, included the use of blocks. Froebel believed that blocks (as well as his other “gifts”) allowed children to “...make the gifts familiar and comfortable for the young child to use, thus accelerating and enhancing their learning experience” (Manning, 2005, p.373).

According to Manning (2005):

the gifts emphasize progressive learning activities with increasing difficulty. They encourage the child to focus on and begin to move from the solid to the abstract, as well as to be more creative in their attempts to play with these units (p. 373).

Moore (2002) indicated that:

Froebel believed the blocks made by toy makers of the time were entirely inappropriate for young children; they were quite stylized, with intricate shapes, and were very difficult, if not impossible, to stack. Froebel crafted a set of geometric blocks that allowed the children to make symbolic representations with the blocks through more open-ended experiences (p. 17).

Similarly, Piaget believed that symbolic play was important and that it occurred during the preoperational stage. During this stage of development, two types of symbolic play occurred: dramatic and constructive. Piaget, like Froebel, believed that during constructive play, children used concrete objects to produce a representation of another object such as using blocks to symbolize a house or building. This type of play allowed children to construct images of their own realities of the world.

Additionally, like Vygotsky, Froebel believed children should interact socially and work together with other children. Manning (2005) reported five rules that Froebel created for his 'building' gifts (blocks). These rules are as followed:

1. Use all the materials in order to keep the idea of the relation of parts to a whole.
2. Give names to each object constructed, bringing it into relation [sic] with the child's experience.
3. The younger the child, the more you should talk about the thing that you will construct.
4. When the play is designed to be individually oriented, do not allow the child to rely on the materials of his playmates in his building project.
5. Intentional group work or 'united building' should be frequently introduced during these exercises (p. 373).

Rule number five basically means, “Children must learn to work with others” (Manning, 2005, p. 373). Again, social interactions (much like Vygotsky and Rogoff) were viewed as vital forms of communication between children. This united form of communication, not only to get along together, but to enhance children’s understanding of the world around them, produce more complex social interactions.

Froebel created the first early childhood (kindergarten) classroom in Germany in 1839. Margarethe Schurz, a former student of Froebel, opened the first German-speaking kindergarten in the United States in Watertown, Wisconsin in 1855. The first English speaking kindergarten was setup by Elizabeth Peabody, “who had been introduced to kindergarten by Margarethe Schurz” (Allen, 2006, p. 176), in 1860. However, the United States did not open their first public preschool until the early 1900’s. “The first public preschool program began at the Franklin School in Chicago in 1925 with the support of the Chicago Women's Club” (Preschool-History and Demographics, 2011). Early childhood theorists from Froebel, Piaget, and Vygotsky contributed and influenced early childhood teachers as to understand what should be included in environments as well as activities being conducted in early childhood classrooms.

All of these ideas (which originated with Froebel, then Piaget, Vygotsky, and Rogoff) were observed during this study’s classroom observations. In each of the classrooms, children played socially with blocks to create and simulate objects in reality.

Teachers were specifically asked about various facets of early childhood theories as well as observed to see if these components were reflected in their teaching practices. These included the use of play, scaffolded instruction, emergent literacy, and spatial reasoning. With the exception of scaffolded instruction, most of these concepts were observed in the teachers’ daily practices.

According to Froebel, “Play is the purest, the most spiritual, product of man at this stage, and is at once the prefiguration and imitation of the total human life, - of the inner, secret, natural life in man and in all things” (1887, p. 30). Brosterman (1997) stated that according to Froebel, “Play was fundamental to the success of the kindergarten. Froebel discerned that harnessing the natural activity of children, often referred to in kindergarten literature as children’s ‘work’ was the key to educating the young” (p. 33). In this study, play was demonstrated, during observations, throughout the day, in a variety of activities in every classroom. Teachers incorporated play into center time and gross motor time daily. At these times, children were allowed to play and communicate with their peers. This allowed children to explore ideas and concepts they were learning by interacting with one another socially.

Within the Foundation Blocks, emergent literacy was defined as “the view that literacy learning begins at birth and is encouraged through participation with adults in meaningful literacy-related activities” (Virginia Department of Education, 2007, p. 56). Emergent literacy allows children to have experiences with printed language such as letter recognition and their corresponding sounds, writing, identifying parts of a book, drawing pictures, and exposing children to vocabulary.

Research concludes that children who progress well in literacy development are immersed in environments consisting of rich children’s literature, varied and frequent language experiences and many opportunities to write. Conversely, children who are not progressing to expectations benefit from more of these kinds of activities in addition to more explicit classroom experiences (Virginia Department of Education, 2007, p. 9).

Teachers provided emergent literacy experiences in the classroom daily as was evident throughout the observations. The two more experienced preschool teachers incorporated

emergent literacy in a variety of subject areas including science, social studies, and math. They were observed probing for the meaning of vocabulary words, having children make predictions, linking information to prior knowledge, teaching letter/sound recognition, and identifying titles/authors/illustrators during book and print awareness activities. The two less experienced preschool teachers included a few literacy experiences for their students (for instance, reading books aloud and allowing the students to discuss the story). However, the research data could not corroborate that the two less experienced teachers integrated literacy experiences in the content areas of math, science, or social science and history.

Spatial reasoning is characterized by the sense of shapes and how these shapes relate to each other. This concept can be seen in activities that incorporate shapes, positional words, comparing size and length of objects, and working puzzles. Each of the four teachers incorporated similar activities during observations, specifically during math activities and center time. The two more experienced teachers incorporated this concept into activities (when applicable) throughout the day regardless of the content area (literacy, math, science, and/or social studies). The two less experienced teachers were observed incorporating spatial reasoning into mathematical activities and puzzle centers but did not take the opportunity to include them in other subject areas such as literacy.

The preschool teachers in this study did reflect some early childhood theories in their classroom practices. Teachers were asked during the interview and commented that they were trained and had knowledge of these concepts. However, not all of the concepts were demonstrated during observations and it was undetermined whether or not the teachers actually used all of these concepts in their pedagogical methods.

According to the afford mentioned early childhood theorists, theoretical concepts such as play, scaffolded instruction, emergent literacy, and spatial reasoning are vital preschool teaching strategies and are expected to be incorporated into the teachers' daily practices. Based on the data, the four teachers in this study incorporated play, emergent literacy, and spatial reasoning in their daily lessons, although the means by which they incorporated these concepts were somewhat different. However, none of these teachers demonstrated scaffolded instruction during their three days of observations. In order for preschool-aged children to excel to their highest level, classroom teachers should incorporate scaffolded instruction as well as play, emergent literacy, and spatial reasoning.

Research Question 3: Are there ways in which educational background influences preschool teachers' pedagogy and if so, how does educational background impact teaching?

The Committee for Economic Development (2006) affirmed that, "the most successful preschool programs employ teachers with bachelor's degrees and training in early childhood education and development" (p. 4). The educational backgrounds of the teachers in this study varied from teachers with bachelor's degrees to master's degrees and teachers with twenty plus years of experience to one teacher in her first year of teaching preschool. The first-year teacher was the only participant with a master's degree. The two more experienced preschool teachers held bachelor's degrees. The level of educational attainment seemed to be related to the teachers' pedagogy. The two more experienced teachers held bachelor's degrees and seemed to use a more complex set of pedagogical skills for pre-k. The teacher with the least amount of experience and the higher degree, as well as the other teacher with less preschool experience and a bachelor's

degree, demonstrated use of a limited range of teaching techniques and strategies as compared to their colleagues.

The range of activities and how these activities were implemented varied, depending on the experience of the preschool teacher. The more experienced preschool teachers incorporated various skills into all subjects and exposed their students to a wider range of knowledge. For instance, the more experienced preschool teachers exposed the children to new vocabulary with an explanation of the word's meaning; provided demonstrations on how large an animal in a story was; and brought objects to school to assist children in understanding what they were learning. The more experienced teachers asked questions that probed children's higher level thinking skills and often incorporated prior learning. The less experienced preschool teachers presented lessons where they asked questions but answered their own questions instead of allowing the children to answer and then went on to another activity. There was very little closure or linking to prior knowledge. The less experienced teachers asked very few questions during other parts of the day besides during "show-and-tell" whereas, the experienced teachers asked higher level thinking questions throughout the day.

When discussing social skills and social development, one of the less experienced teachers stated that one of the reasons she began teaching preschool was so that she could "do more of the social learning than the academic and reading learning." She also stated "learning should be set up in a fun way so that they are learning, but still being social and being successful." However, there was no evidence in her classroom to support the development of social learning among peers. For instance, this teacher separated two students who had a conflict, but did not address the situation with the students to explore why their behavior was inappropriate and how they could improve in the future. She did not allow the students to express

their feelings or concerns; thus, she was managing the conflict to control behavior without helping the students improve and gain social skills. The data supported the idea that the more experienced preschool teachers engaged children in more social learning experiences as compared to the two less experienced preschool teachers.

The four teachers in this study shared a commonality in their definition of curriculum as the manufactured textbook series that was used in the classroom. This was very interesting in that, with the diverse backgrounds of the teachers (specifically the years of experience), they all talked about the curriculum (and used the word “curriculum”) when discussing the textbook series in their classrooms. This intrigued the researcher to the point that she contacted the Virginia Department of Education (VDOE) to determine how the state defined the curriculum for preschool. According to a VDOE official, curriculum is defined as “the vehicle used to teach the state preschool standards” (C. P. Strobel, personal communication, October 14, 2010). Therefore, the preschool teachers in this study defined curriculum similarly to the VDOE. For them the curriculum was the textbook series or materials, i.e., the vehicle used to teach the Foundation Blocks.

The findings indicated that having more preschool experience seemed to have positive influences on incorporating a wider range of teaching strategies across the content areas. The less experienced teachers included one that was in her first year of teaching and one who had many years of experience in other grades levels but was in her first year of teaching preschool. Since the less experienced teachers were in their first year of teaching preschool, it was unfair to compare the more experienced to the less experienced preschool teachers. Therefore, the effect of educational level being compared to preschool teachers’ pedagogy is still undetermined.

Research Question 4: In what type of school setting (a preschool center or an elementary school) are the preschool classrooms situated and how does this structure effect the implementation of Virginia’s Foundation Blocks within the classroom?

There were four preschool classrooms in different school settings that were observed for this study. Three of the classrooms were located in elementary schools that housed grades pre-k through fifth. One of the classrooms was located in a preschool center. This center housed three-year –old preschool classrooms and four-year-old preschool classrooms. Each classroom had a certified teacher and a teacher assistant.

Regardless of the setting, all of the preschool classrooms were designed and decorated in a similar manner. The schedules were comparable. One difference was that physical education teachers in the elementary schools conducted gross motor activities while the classroom teacher in the preschool center had to conduct her own gross motor activities. Another difference was that elementary schools also offered other specialties such as art and music that were conducted by teachers other than the classroom teacher. However, regardless of who conducted the activities, preschool students in all of the participating classrooms were provided these fine arts and gross motor activities on a regular basis.

The locations of the classrooms dictated how preschool teachers communicated with others when questions arose about the Foundation Blocks. The preschool center’s staff consisted solely of teachers who taught preschool and used the Foundation Blocks daily. Teachers within this center had access to peers to ask questions, generate ideas, and to assist in the understanding of the Foundation Blocks at anytime during the day. The research findings for this study indicated that teachers in the elementary schools were the only preschool teachers in the building. Therefore, questions, concerns, or clarifications were conducted through emails or

discussed at district meetings. Preschool teachers at the elementary schools indicated that they did have support but they did not have the convenience of having that support readily available and in their buildings like the teachers in the preschool center.

The support that was provided to the preschool teachers in the elementary schools varied from participant to participant. One of the preschool teachers within the study indicated that she asked questions of her teacher assistant regarding how to interpret the Foundation Blocks.

One of the two less experienced preschool teachers stated that she didn't "collaborate with anybody..." This was the first year of teaching preschool for this teacher and she was the only pre-k teacher in the elementary school in which she was located. It was not clear whether her lack of collaboration was a personal choice, or if she was not being included by the school staff, or a combination of the two. This participating teacher also stated that she had "...a hard time knowing if I am doing everything I should be doing or not." Apparently, this teacher did not understand that the Foundation Blocks were constructed to provide guidance on exactly what preschool teachers should be teaching in the classroom. With this understanding, she would realize that the Foundation Blocks, "should be the basis for curriculum development and selection at the local level" (Virginia Department of Education Foundation Blocks, 2007, p. 1).

The other less experienced preschool teacher provided another opinion about the purpose of the Foundation Blocks. She stated that "I think it helps us to not just be a daycare. That we have these goals and things that we all want to keep standard across the county." The Foundation Blocks are state standards and span well past the county, but this teacher did not appear to know this fact. Further, the Foundation Blocks standards provide much more information than just distinguishing preschool classrooms from daycares.

In conclusion, the basic effect of implementing the Foundation Blocks within an elementary school versus a preschool center was that the collaboration was much more accessible in a preschool center. The three preschool teachers in elementary schools had to rely on email communications, district meetings, phone calls, or the interpretation of the Foundation Blocks from other grade level teachers. In their opinion, this seemed to work and was satisfactory to the three preschool teachers. However, the one preschool teacher who was located in the preschool center was able to instantaneously obtain input, clarification, and interpretations from numerous preschool teachers regarding the Foundation Blocks. This preschool teacher, like the other three preschool teachers, had access to her district level for support. However, this preschool teacher also indicated that she could contact the state department for questions regarding the Foundation Blocks. She was the only preschool teacher to mention going directly to Virginia's Department of Education. This preschool teacher indicated that she had a broader support base, which included peers, the school/preschool center, the district, and state level for interpretation of the Foundation Blocks.

Conclusions

In reaching conclusions across the research questions, there were eight topics that seemed particularly salient and relevant for discussion. These topics include (a) teacher questioning, (b) scaffolded instruction, (c) teacher expectations, (d) similar classroom environments, (e) role of teacher experience versus educational level, (f) school setting, and (g) collaboration.

Teacher Questions. “In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behavior important in learning. Bloom found that over 95% of the test questions students encounter require them to think only at the lowest possible level...(the recall or information level)” (Officeport, 2010). As

a result, he created Bloom's Taxonomy. "Bloom identified six levels within the cognitive domain, from the simple recall or recognition of facts, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order which is classified as evaluation" (Officeport, 2010). This lead naturally to several questions: Have we actually improved since 1956? Have teachers learned to use appropriate questioning techniques within their teacher preparatory programs? Have they been able to take this information forward into practice in their own classrooms? Did preschool teachers implement higher level questioning techniques or was it possible that some preschool teachers didn't believe preschool children were capable of responding to higher-level questions?

In this study, the types of questions the preschool teachers asked became obvious when analyzing the data. The four teachers in this study used a variety of teaching methods to implement the Foundation Blocks. The more experienced preschool teachers employed activities throughout the day that probed students' prior knowledge. Further, these two teachers encouraged students to ask and answer higher-level questions at the evaluation level of Bloom's Taxonomy. They asked prediction questions such as: "Where do you think the gingerbread man is going?" (when reading the story The Gingerbread Man) and vocabulary assessment questions such as "What does the word 'gnaw' mean?" These two teachers tended to challenge their students by asking higher-level questions throughout the day.

The less experienced preschool teachers utilized methods that basically provided information to students but did not probe students' prior learning and did not incorporate questions higher than the knowledge level of Bloom's Taxonomy. Examples of these questions were: "What color is the duck?" or "Does he [dog] have a name?" More worrisome to the

researcher was that data showed that questions only occurred during “show-and-tell” activities, not throughout the day.

In conclusion, the two more experienced and two less experienced preschool teachers had notably different questioning techniques. The two more experienced teachers utilized questions from the analysis (compare and contrast) level and the evaluation (prediction) level. The two less experienced teachers never probed beyond asking questions at the knowledge (recall) level and comprehension (describe) level.

Scaffolded Instruction. Even though teachers stated in interviews that they utilized scaffolded instruction within their classrooms, this concept was not demonstrated during observations. Therefore, one must question whether “...the term ‘scaffolding’ ... is used inaccurately...” by the teachers (Gibbs, 2009, p. 77). It was possible that scaffolding was defined differently from the perspective of the teachers than the definition for scaffolded instruction in the Foundation Blocks. Regardless of the reason, the fact that not one of the four preschool teachers was observed utilizing scaffolded instruction in their teaching practices was very disturbing. Of the four major preschool concepts: play, emergent literacy, scaffolded instruction, and spatial reasoning, scaffolded instruction would be considered the most crucial in assisting children to go beyond current levels of understanding and creating new learning. Scaffolded instruction could be utilized during any of these concepts (play, emergent literacy, and spatial reasoning) since preschool children were learning during all of these activities.

It is extremely important that preschool teachers have an understanding of what scaffolded instruction is and how it can be implemented in daily classroom practices. Preschool teachers must be so immersed in the use of scaffolding that they can implement this technique on the spur of the moment. Scaffold instruction is dependent on what the preschooler says or how

the preschooler acts during the teacher-child interaction. “Teaching requires both awareness of the learner’s needs and sensitivity to the learner’s response to the instruction provided” (Lee, 2011, p. 41). Teachers need to be prepared to assist children in learning beyond their current educational level. This can only be achieved with the assistance of an adult. As stated by Lee, “...scaffolding strategies in the early childhood classroom must be intentional and well executed” (2011, p. 38). Scaffolded instruction cannot be taught by lecturing. It must be learned through observation and practice. Effective scaffolding usually occurs one-on-one between a child and teacher.

To use such techniques effectively, teachers need to be aware of a child’s changing developmental status, knowing when and how to provide new tasks and structure, and helping the child learn new skills and abilities while still allowing a degree of autonomy (Lee, 2011, p. 38).

The data revealed that the four teachers in this study did not demonstrate the practice of scaffolded instruction. As an example, scaffolded instruction could have been done during center time or small group instruction where the teacher should think, “Where can I take these children to an understanding that they don’t have now?” An example might be when preschool teachers were teaching the concept of money, specifically pennies and nickels. After learning and having an understanding of the one-to-one relationship that one penny equals one cent, the teacher must assist the children in learning that five pennies represent one nickel.

“Young children need assistance as they attempt new tasks and seek to master familiar ones” (Lee, 2011, p. 38). The teacher should start “...with an idea of what children already know and what they need to learn. As the learning experience unfolds, the teacher is constantly

re-evaluating their knowledge, seeking to find the gaps that exist, and trying to fill them” (Lee, 2011, p.40).

The fact that preschool teachers were not going beyond assessing prior knowledge to a scaffolding level was disturbing in that the children in these classrooms were not reaching their full potential. The teachers were not using windows of opportunity to “tap into” these children’s sponge-like learning potential at this age. This researcher wondered how common this was among preschool teachers. Were teachers going into preschool “just to have fun” (as stated by one of the participants) and not realizing the potential of preschool-aged children who can be taught by scaffolded instruction? If preschool teachers have difficulty scaffolding instruction, there is very little promise in preschool. “Responding to children’s activities and behaviors is a staple of early childhood instruction. Yet the degree to which feedback is used often determines whether or not learning will occur” (Lee, 2011, p. 41). Therefore, teacher education programs should provide this training. In doing so, prospective teachers could demonstrate their understanding of this technique during their student teaching experience. For example, Virginia Tech’s Elementary Education Field Experience and Student Teaching Handbook (2011), states that student teachers will use “students’ strengths as a basis for growth and their errors as an opportunity for learning” and will assess “individual and group performance in order to design instruction that meets learners’ current needs and promotes further development”. Although not explicitly stated as scaffolded instruction, these performance indicators do align with the definition of scaffolded instruction.

Teacher Expectations. “Student achievement can be affected by expectation induced in instructors” (Good & Brophy, 2003, p. 69). The less experienced preschool teachers had lower expectations for students than did the more experienced preschool teachers. This was evident

when the less experienced preschool teachers stated that they concentrated activities on the lowest level of children in their classrooms so that everyone could participate and be successful. “...Unfortunately, the most sizable teacher expectation effects on student achievement appear to be negative ones in which low expectations lead to lower achievement than students might have attained otherwise” (Good & Brophy, 2003, p. 84). One must question why these two preschool teachers felt that they needed to provide instruction based on the lowest skill level in the classroom. It might be understandable if:

...it is the early learning standards that consume most of their [preschool teachers] energy. This is because most public systems are paring their early learning standards with an accountability system that includes sanctions when children do not get to their destination by the end of a particular leg of the journey. The pressure to “get there” is palpable (Graue, 2008, p. 444).

However, this is not the case in the state of Virginia. To date, sanctions are not affiliated with the Foundation Blocks. Even if this were the case, teachers should not set low expectations for students. Preschool teachers should raise their “...expectations for what we want children to learn and how we want them to develop. As such, they should be the basis for decisions we make about curricula, assessments, professional development, and expectations for teachers’ daily practice” (Scott-Little, 2006, p. 2).

All four teachers in this study demonstrated the same basic level and pattern of instruction every day. They began the day with circle time. The circle time activities were mostly teacher dominated and more often than not remained the same everyday. The only exception (during observations) was that one day a new element was added. The two more experienced teachers brought in flowers for the class to see and use as a topic of discussion as an example of

the spring season. All of the teachers utilized centers, which were child driven. During center time, the teachers had minimal contact with the students. One teacher did read a book to a child during center time and one teacher interacted with one student by assisting that child on the computer. She also talked with students who were lacing cards and children using the leap mats. This would have been an optimal time to get to know the children individually and to connect with children to gain a better understanding of their prior knowledge so that scaffolding could occur. It would also be the time and place to demonstrate high expectations for every student.

The data indicated that reading to the children as well as facilitating fine motor and gross motor activities occurred on a daily basis. Most of the reading took place as a large group activity but once again, this would be an optimal time to use higher-order thinking skills to help children reach higher potentials. As an example, rather than just reading a story, the teacher could create puppets and let some of the children recreate the story by role-playing the characters and re-telling the story. This would give the children a higher sense of expectation and help them participate as active listeners.

Overall, the four teachers in this study exhibited low expectations for their students. One of the teachers commented during interviews that they taught to the lowest level of their students. Another teacher acknowledged that she had a variety of ability levels in their classrooms and said that she tried to vary instruction. However, this was not demonstrated during classroom observations. Basically, the only difference in these four teachers' expectations was that two of the teachers asked some higher-level questions.

Research has shown that low expectations of students yield low results. Good and Brophy confirmed this when they stated,

A particular danger is that low expectations combined with an attitude of futility will be communicated to certain students, leading to erosion of their confidence and motivation for learning. This will deepen their sense of hopelessness and cause them to fail when they could have succeeded (2003, p.95).

Students should never be underestimated in what they can achieve, especially when beginning their educational journey in preschool. Teachers who extended low expectations to students encouraged students to achieve minimal levels instead of optimizing their potential. Preschool-aged children need help and assistance to gain the highest confidence levels. They need to begin their educational experience with high expectations. They should not be underestimated in their abilities and should be given every opportunity to excel to their highest level. Virginia

Department of Education Foundation Blocks state:

The essence of early personal and social development is a child's self-concept. A sense of self-worth enables a confident child to participate in most classroom activities, express emotions, explore toys and materials, and interact with others in the classroom (Virginia Department of Education, 2007, p. 51).

If preschool teachers are not extending high expectations to students then they are not allowing students to gain the confidence they need to try and/or participate in new, different, and sometimes challenging activities. Preschool-aged children have the ability to comprehend and obtain knowledge well beyond what the teachers in this study demonstrated. These preschool teachers need to raise their expectations to levels that are reasonable and appropriate for four-year-olds. According to Good and Brophy (2003), "Expectations should be appropriate, given student's current capabilities, and they should be accompanied by appropriate instructional behavior, that is planned learning experiences that move students through the curriculum at a

pace that fosters continued success and improvement” (p. 93). In order for high expectations to work teachers must:

- broaden goals of lessons and activities
- pay more attention to students’ ideas and interests and encourage them to play a larger role in assessing their own performance
- increase opportunities for students to participate actively and use materials in meaningful ways
- ask questions that require students to think, analyze, synthesize, or evaluate ideas
- focus on the positive aspects of learning by encouraging, reinforcing and noting progress toward learning goals (Good & Brophy, 2003, p. 87)

If teachers are not capable and/or willing to set high expectations for student learning, they simply cannot effectively meet the unique needs of the children. States and school districts should consider this when evaluating teachers’ performance. Some teachers are not meeting the needs of students, as noted by President Obama, who said that he: “...will challenge state and school districts to remove ineffective teachers from the classroom (White House Education, 2010, p. 2). Just as scaffolded instruction is paramount in teaching children to raise their proficiency level to higher levels, teachers’ expectations, if not high, can be just as detrimental.

Similar classroom environments. From an environmental perspective, the preschool classrooms in the various locations were almost indistinguishable. These environments included a large group meeting area with a rug and rocking chair, kitchen, dress-up, blocks, writing, art, puzzles, listening, and library centers, and cubbies for children to store their coats and book bags. This may be attributed to

... four key attributes of spatial arrangements in classrooms that researchers believe can facilitate language learning and use. First, the classroom should be organized to emphasize open space. Second, specific areas should be clearly identified throughout the classroom (e.g. library, dramatic play area). Third, a variety of materials should be available to children, particularly materials that encourage creativity and problem-solving. These materials should be clustered conceptually or schematically. Fourth, authentic, functionally complex dramatic play settings should be available in each classroom. Examples include an airport, grocery store, a miniature classroom and a restaurant (Justice, 2004, p. 38).

Preschool textbooks recommended having a classroom that provided space for learning, individual/personal space, and exploration areas.

We also know from research that children will explore their world by experimenting with real world objects or concepts through play. Justice explained this by stating that, “real-world props and materials are authentic tools that children use in their play to represent life outside the classroom. Exposure to these props and materials, particularly with adult mediation, helps children learn new words, develop schematic representations of community activities, and apply background knowledge to new learning situations (2004, p. 40). Based on history, research and theory, these classrooms matched the means for implementing the Foundation Blocks. These teachers were doing a very good job in creating classroom environments that were appropriate and beneficial for their students learning.

Similar classroom practices. Classroom schedules were almost identical in that they were comprised of morning large group meeting time that included calendar, weather, and seasonal information; literacy/social studies activities; math/science activities; gross motor time;

fine motor time; and rest time. Justice stated “a philosophy about oral language influences the choices that educators make in structuring the physical environment of the classroom, designing daily lesson plans and interacting with children” (2004, p. 38). The daily activities that the participating teachers used during observations were designed to encourage and facilitate oral language and discussion from their students. The two more experienced preschool teachers implemented more expansive lessons that encouraged children to talk. They asked questions, probed for understanding, linked to prior learning, and encouraged their students to interact with both peers and adults. The two less experienced preschool teachers encouraged children to interact with adults and peers but restricted these experiences by limiting the questions asked, often asking and answering their own questions, and offering few opportunities for class discussions.

From the similarities seen in the classroom observations, it can be concluded that these preschool teachers were aware of the Foundation Blocks. Some teachers referenced the Foundation Blocks prior to planning lessons, and others viewed them after the fact, to ensure they were being implemented. Teachers also indicated that the Foundation Blocks were written clearly and that in most cases they did not have any difficulty interpreting them. If further insight was needed, each preschool teacher felt that they had a support system in place from which to get clarification.

As established earlier, the Foundation Blocks were created using early childhood theories as a foundation. From these theories, three prevalent concepts were observed in the four classrooms. These were play, emergent literacy, and spatial reasoning.

Piaget (As cited in Elkind, 2007) states, “Play is the answer to the question, How does anything new ever come about?” Play is very important to preschool-aged children. They

explore, retell, and imagine the world around them during play. “Play is our need to adapt the world to ourselves and create new learning experiences” (Elkind, 2007, p. 3). Holzman adds that

...performing has similarities to pretend play of early childhood in which children are doing what is familiar to them and at the same time, doing things that are brand new, things that are beyond them. And they do this all day long. We let very young children perform ahead of themselves - speaking, drawing pictures, reading books (and much more) before they know how. This performing kind of play and these spaces for performance are essential to development and learning -not only in early childhood but for all of us at all ages (2009, p. 19)

Play assists preschool-aged children in making sense of the world around them. Vygotsky wrote, “a child’s greatest achievements are possible in play” (1987, p. 100). Each of the four participating teachers recognized the importance of play, as demonstrated in interviews, and they incorporated play in their classroom practices.

The second theory-based concept was emergent literacy, which referred to children’s experiences with and knowledge of printed language. The Foundation Blocks incorporated emergent literacy skills in the core area of literacy and also in the areas of science, and history and social sciences. All of the participating teachers exposed their students to printed language everyday. They read books/poetry, and provided listening centers, writing centers, library centers, and computer centers that supported literacy. Children explored the world of print by singing songs, through class discussions, and by discussing and demonstrating vocabulary related to texts. Even though all of the participants included emergent literacy activities in their daily practices, exposure to literacy varied across classroom contexts. The two more experienced preschool teachers read numerous books to their children and explained vocabulary, pictures, and

texts. The data indicated that the two less experienced preschool teachers exposed their students to printed language through books, but did not make connections for their students by explaining vocabulary, and discussing the meaning of texts. Further, they were not observed linking texts to prior knowledge.

Spatial reasoning was the third shared theory-based classroom practice all of the participants had in common. Spatial reasoning is associated with mathematical concepts of shapes and how they relate to each other. The Foundation Blocks state, “a child will describe simple geometric shapes (circle, triangle, rectangle, and square) and indicate their position in relation to him/herself, and to other objects” (Virginia Department of Education, 2007, p. 21). The participants each provided a variety of activities that integrated spatial reasoning in their classroom practices. These activities included utilizing puzzles, singing shape songs, computer programs that incorporated mathematical concepts, and playing with blocks. Variations across the classrooms were not noted during observations.

Role of teacher experience. Although the findings from this study cannot be generalized, it is interesting to note that the more experienced preschool teachers demonstrated pedagogical techniques that addressed higher level thinking skills. The less experienced preschool teachers did not. It may be appropriate for more research to be conducted regarding the role of teacher experience in preschool teaching techniques.

School Setting/Collaboration. The data from this study provided insight into several different types of collaboration. These included collaboration between preschool teachers and other preschool teachers, preschool teachers and kindergarten teachers, as well as preschool teachers and students’ parents.

Although the setting of the preschool classrooms in this study (whether an elementary school or preschool center) did not affect the implementation of the Foundation Blocks, it did affect collaboration between preschool teachers. Collaboration between preschool teachers was much more feasible in the preschool center as compared to the elementary schools largely because there was only one preschool classroom per elementary school. There were numerous three- and four-year-old preschool classrooms located in the preschool center. The accessibility to colleagues to brainstorm, ask questions, discuss concerns, and plan together was much more feasible for the staff members of the preschool center. Preschool classrooms located in elementary schools were often isolated. Preschool teachers located in the elementary schools could collaborate with teachers of other grade levels, but had to rely on emails, telephone calls, and meetings to collaborate with other preschool teachers. Preschool peers were not readily available to them.

All four of the preschool teachers indicated that they were not sure if the kindergarten teachers even knew that the Foundation Blocks existed, what they were, or their content. In this study, year-end collaborations between preschool teachers and kindergarten teachers did not take place. Collaboration between preschool teachers and kindergarten teachers should have occurred in both the elementary school and the preschool center. This collaboration should have taken place easily in the elementary schools since the kindergarten teachers were located in the building. Collaboration between preschool teachers and kindergarten teachers did not transpire thus location did not matter. This was disheartening to the researcher. Meetings between preschool teachers and kindergarten teachers should be the first step in assisting children in making easy transitions into kindergarten. Not only was this a critical step for the children but the kindergarten teachers, as well. Besides transitioning the students into a new setting, end of

the year meetings could help kindergarten teachers prepare for a new year by knowing the skills, dispositions, interests, and the ending level of each child coming from preschool. Academically, these collaborations would prepare kindergarten teachers to “pick-up” from where the preschool teachers left off and lead students to spring board into a new year without the repetition of curricula that the students had already mastered. Researchers have “...found a positive connection between implementation of transition practices at preschool-kindergarten transition and academic achievement at the end of kindergarten” (Ahtola, Silinskas, Poikonen, Kontoniemi, Niemi & Nurmi, 2011, p. 296). In addition to academics, students have other adjustments to overcome when transitioning from preschool to kindergarten as well as kindergarten to first grade and beyond.

Throughout childhood, children participate in a variety of ecological transitions that require adaptation to new or altered environments. Changes in school environments represent one type of ecological transitions that all children face, and this transition may take one of several forms including initial school entry, progression from one level of schooling to another and school transfers. During these transitions, children must cope with many new demands; they must meet new academic challenges, learn new school and teacher expectations and gain acceptance into a new peer group (Ladd & Price, 1987, p. 1168).

Kindergarten teachers could ease this transition for these young children by gaining a greater understanding of their new students before the first day of school. This would allow kindergarten students to adapt to their new classroom, school (if kindergarten is located at another school), and their peers with less angst.

Another form of collaboration included teacher and parent. As we have heard many times, parents are a child's first teacher. Therefore, preschool teachers should initially meet with parents in order to gain better insight and understanding of their child. Like the kindergarten teachers, preschool teachers should have an understanding of their students through the eyes of the students' parents (their first teachers)

The function of a good parent-teacher relationship is much more than just a vehicle for status reports from teacher to parents on a child's performance. It is really a partnership providing two-way information flow from the teacher to the parents about the child's classroom achievements and persona and from the parent to the teacher about the complementary elements in the home environments (Loughran, 2008, p. 35)

Home visits would allow the preschool teacher to gain a better understanding of the students, the students' parents, and the students' family and home environment. Molly, the participating teacher at the preschool center, was required to conduct a home visit for each child, specifically for this purpose. Data from this study did not indicate that the other three teachers conducted home visits.

Parent-teacher conferences would also constitute times in which teachers could capitalize on parents' knowledge of their children. "Teachers need to respect and acknowledge the parents' role as prime educators and role models. The more teachers encourage parents in this role, the more the child will benefit, and the more fruitful classroom learning will become" (Loughran, 2008, p. 360). Parents can gain valuable knowledge about what their children are learning in school; how well they are doing; how they can assist their children at home; and ways in which they can get answers to questions or voice concerns. "...Teachers can offer suggestions for carrying over concepts from the classroom to the home so that what is learned in school has an

impact on the time parents spend with the children” (Loughran, 2008, p.360). Data were not obtained in regard to preschool teachers conducting parent-teacher conferences.

Synthesis of Findings. The pedagogy of the four preschool teachers who participated in this study shared some commonalities. These included: classroom environments, specific classroom practices during routine activities, and student expectations. Their classroom environments and daily schedules were similar and basically fit the profile of typical preschool classrooms. These similarities were fundamentally set forth in most preschool literature as expected basic methodologies. These four preschool teachers confirmed that these standards had been set for their preschool classrooms and they had met these standards.

The researcher concluded that there were various concerns about daily teaching methods. These included: scaffolded instruction, high teacher expectations, and collaborations with other teachers. The four teachers were not observed demonstrating or incorporating any of these strategies within their teaching practices. Each of these teaching methods were vital parts of any classroom but especially preschool classrooms. The research of theories and best practices for preschool show that without scaffolded instruction and high teacher expectations, these teachers could be limiting children’s potential. These practices should be integrated into all preschool classrooms on a daily basis (with the possible exception of collaborations, which may not occur daily).

In addition to the areas of concern, there were two areas with noticeable differences between the more experienced preschool teachers and the less experienced preschool teachers. These two areas included teacher questioning and teacher experience. The teacher’s years of experience in preschool in this study, even though it cannot be generalized, seemed to impact the teacher’s questioning techniques. The two more experienced teachers asked higher-level

questions to their students on a regular basis. The two less experienced teachers only asked knowledge level questions and they only asked them during show-and-tell activities.

In conclusion, the four preschool teachers in this study demonstrated strong practices in establishing appropriate classroom environments and daily routines. However, crucial teaching methods that maximize student learning such as scaffolded instruction, high expectations, and collaborations were not observed in their classrooms.

Implications for Practice

Teacher preparation programs. The findings indicated that even though teachers believed they had knowledge in areas such as scaffolding, it didn't necessarily mean that they were implementing scaffolding in the classroom. The teachers in this study rated themselves as being trained and having significant knowledge of scaffolded instruction. However, when they were observed there was no evidence that scaffolded instruction was actually implemented. Therefore, one must ask if the teachers actually understood what scaffolded instruction was or if they knew what it was, but did not choose to apply it, or if they did not possess the needed skills for implementing scaffolding. It could be that the teachers had a different definition of scaffolded instruction than that of the Foundation Blocks. According to Pentimonti's and Justice's study, "...teachers' perceptions of their use of scaffolding differs from observed use, in that teachers believed they used high support [scaffolding] strategies when, in fact, they seldom did" (2010, p. 246).

One implication for practice is that teacher preparation programs should provide substantial knowledge, understanding, and practice when assisting future teachers in learning how to implement scaffolded instruction. Scaffolded instruction is critical to support and extend students' learning and should be an essential component of preschool education classrooms

(McGee & Ukrainetz, 2009; Vygotsky, 1978). Teachers must be well educated and trained in this area. “The most powerful source of efficacy information comes from mastery experiences or hands-on teaching opportunities in classrooms with students” (Johnson, 2010, p. 23). Previous research has also suggested this implication for practice. “Our finding suggests a need for greater professional development to increase teacher awareness of how they can use scaffolding...” (Pentimonti & Justice, 2010, p. 246).

Pre-service teachers not only need to understand what scaffolding instruction is but also need to know how to implement this strategy into classroom instruction. How can this be accomplished? How can pre-service teachers gain this experience and be taught how to apply scaffolded instruction in their daily classroom practices? Pre-service teachers often do not gain the experience they need while participating in field studies or student teaching experiences.

Research suggests that many times what pre-service teachers have learned in the college classroom takes a back seat to what they perceive as reality in their field placement unless their university coursework makes a direct attempt to address this disconnect (Johnson, 2010, p. 29).

Teacher preparation programs educators can assist pre-service teachers by creating and implementing various strategies to allow the pre-service teachers to gain a better understanding of how to implement scaffolded instruction. These strategies could consist of:

- Arranging for pre-service teachers to observe in-service teachers implementing good scaffolded instruction and participating in a discussion with the in-service teacher as to how she knew what to do at that exact moment, what to listen for or watch for to make necessary determinations that a student needs scaffolding

- Requiring pre-service teachers to keep scaffolding logs of how his/her field experience and student teaching in-service teachers implement scaffolded instruction and how the pre-service teachers implement scaffolded instruction during their student teaching experience. These logs would encourage students to express concerns or ask questions that arise as they reflect, critique, and analyze these scaffolding strategies.
- Critiquing video clips of teachers in the classroom. Asking pre-service teachers to determine if the teacher implemented scaffolded instruction or not, if so, how and what was done and why
- Role-play teacher-student scaffolding scenarios within the different subject (math, science, history, literacy) related courses required in teacher preparation programs
- Collaborations between pre-service teachers/peers, pre-service teacher/in-service teacher, and pre-service teacher/higher educational professions (from teacher preparation programs)
- Modeling and coaching scaffolding techniques that provide “opportunities for articulation and reflection within a community of learners” (Alger & Kopcha, 2011, p. 71) through a technology-based innovation called “eSupervision” (Alger & Kopcha, 2011, p. 71). “eSupervision is designed as a cognitive apprenticeship with the experts (supervisors from the university and the cooperating teachers) working with the student teachers as novices” (Ager & Kopcha, 2011, p. 73).

Any and all of these suggestions could be incorporated into teacher preparation programs to assist pre-service teachers in being able to correctly and confidently implement scaffolded instruction in their classroom.

Another area of interest related to teacher preparation is student expectations. The teachers in this study viewed some of their students as low achieving. These teachers had low expectations for their students, and their teaching practices were directed to the very lowest level for the purpose of insuring success for all. “Teachers are often unaware of their differential behavior toward students” (Good & Brophy, 2003, p. 78). Beginning teachers must enter the profession with knowledge and understandings of expectation effects. “The teacher has a central role in establishing a supportive classroom environment and the teacher’s attitude (shown by tone of voice, comments), enthusiasm and interest in the subject affect learners directly and indirectly” (Jacobs & Harvey, 2010). Teacher training programs at colleges and universities can help teachers develop the belief that high expectations are essential for every child. Future and practicing teachers need to understand the importance and effect of expectations on students. If teachers raise the bar, students will rise to the occasion. “There is growing evidence that the performance of low achievers improves when they are allowed to enroll [engage] in more challenging” (Good & Brophy, 2003, p. 90) learning activities.

Pre-service teachers should be subjected to research pertaining to teacher expectations. They should be required to read articles and books related to teacher expectations. After which many opportunities to discuss these reading should be provided during program course forums. Pre-service teachers could also be provided with video clips of scenarios dealing with teacher-student expectations. Pre-service teachers could then discuss these scenarios during course discussions, peer interactions, or in reflective writings. Pre-service teachers need to be given the opportunity to analyze their personal perceptions and what they may bring into the classroom as a teacher. These analyses could come from thought provoking prompts provided by course professors in which the pre-service teacher would have to reflect in a journal. Additionally, logs

could be maintained during field experiences and student teaching to record observations and personal thoughts, concerns, and feelings about the teacher expectations.

Preschool is the first step in educating children. Teachers need to understand the importance of preschool and how it can affect students and their future educational success. Since preschool is the first step for many students, preschool teachers need to understand how to create atmospheres that encourage, stimulate, and create life-long learners. Teachers need to be advocates, supporters, and cheerleaders for students to achieve all the educational success that they can. In order to do, they must have the knowledge, know how, and specialized training in preschool practices (Jalongo, Fennimore, Pattnaik, Laverick, Brewter, & Mutuku, 2004). “The status of the profession of preschool care and education needs to be elevated so that those who are bright, eager, committed, and highly competent are attracted to teach and remain in the profession until they become master teachers who can facilitate the professional development of the subsequent generation of early childhood practitioners” (Jalongo, et. al, 2004, p. 146).

Policy implications. “Studies have indicated that the education of early childhood education teachers has affected the quality of their early childhood programs” (Saracho & Spodek, 2007, p. 71). Three of the four teachers in this study had taught at other grade levels and were certified to teach across the elementary grades. Can teacher preparatory programs effectively train teachers to have such a diverse knowledge base for a large span of grade level certification? How can a person be trained thoroughly in grades Pre-K through eighth grade? Providing diverse knowledge of children’s growth and development from early childhood through middle school as well as teaching methods and strategies for literacy, math, science, social studies, the arts, health, and physical education is a complex proposition. Currently, the Association for Childhood Education International (ACEI) states that

Teachers of early childhood education should be well acquainted with the broad spectrum of child development, beginning with the prenatal period and including infant/toddler, preprimary, primary and elementary school age children. An early childhood specialty should be developed within the broad scope of teacher preparation (2011).

It does not seem likely that the knowledge with which teachers enter the workforce would be as specific and specialized as needed to teach one certain age group. For example, a person who is certified in pre-k through eighth grade (like the researcher) would need to have a large general knowledge base for all subject areas and grade levels. There is a huge difference between teaching preschoolers and teaching eighth graders. Perhaps teacher preparatory programs are not supplying beginners with a knowledge base to support all these grades and subjects. “It’s time to radically re-think teacher education in the early years” (Broadhead, 2008, p. 10). States Department of Education should consider policies for licensure of future teachers that are less broad and more specific to particular grades or age groups. According to Whitebook, “...pre-kindergarten teachers with a bachelor’s degree and specialized training in early childhood education are the most likely to have the skills that develop better outcomes for children” (2003, p. 5). The downside to creating policies for narrow grade level licensures would be that school administrators would not have the flexibility they have had in the past to move teachers from grade to grade. In addition, the possibilities of teachers obtaining jobs could decrease since their licensure would be narrower.

Professional development for practicing teachers. All licensed elementary teachers should have an understanding of the importance of preschool programs, preschool curricula, and how this experience can affect children in future grade levels. “In schools that cultivate this continuum of learning, early childhood educators are respected for what they can offer their

peers in later grades, and teachers in later elementary grades work with pre-k teachers on connecting learning goals and expectations across all levels” (National Association of Elementary School Principals, 2005, p. 8). In other words, collaboration across grade levels is occurring.

Like kindergarten through fifth grade, Virginia preschool classrooms are responsible for implementing standards, the Virginia Foundation Blocks, in their classroom. Therefore, K-5 teachers should be aware of preschool standards such as Virginia’s Foundation Blocks and how these standards prepare students for kindergarten. “A fact unknown to many school personnel is that many states have also adopted standards for pre-kindergarten, and these early learning standards often address children’s dispositions for learning and the social skills underlying school success in addition to addressing academic content areas” (Logue, 2007, p. 36).

Examining preschool programs and gaining a strong understanding of how preschool works and is implemented can also help K-5 teachers in their learning and understanding of their own pedagogies. Allowing elementary teachers to explore the concepts and practices of preschool (such as play) would hopefully assist the other grade level teachers in gaining knowledge and understanding of various techniques and strategies that they could incorporate within their classrooms (Broadhead, 2008).

Professional development for practicing teachers should integrate knowledge about preschool in general, preschool’s mandated standards, and the benefits of preschool. This will in turn assist elementary teachers in gaining a better understanding of the benefits of preschool (not only the benefits of the preschool students) but how preschool can provide a strong foundation (of future students) to support what the elementary teachers will teach these former preschool

students at their grade level. “Effective professional development significantly impacts teacher practice and knowledge” (Bradley, 2010, p. 32).

Bradley further stated that,

Features of effective professional development include: (a) a focus on specific content knowledge; (b) engagement in active learning opportunities; (c) inclusion of collective participation; (d) have goals that are coherent with teachers’ goals; and (e) are of a duration that allows for in-depth study of content (2010, p. 32).

Practicing teachers should participate in professional development that is significant and well designed. “The incorporation of effective professional development practices leads to positive improvement in teacher instruction” (Bradley, 2010, p. 40).

Role of the administrator. The National Association of Elementary School Principals issued an executive summary entitled *Leading Early Childhood Learning Communities: What Principals Should Know and Be Able To Do* (2005), recommending that preschool classrooms be an integral, integrated part of the elementary school setting. This was not the case in this study. The preschool classrooms located in the elementary schools were isolated and withdrawn from the grade level classrooms in the schools. The preschool teachers were teamed with mentors who were in different grade levels/had other educational positions such as special education teachers. These mentors did not have any preschool expertise. The teachers commented that in order to gain understanding or clarification regarding the Foundation Blocks, they could email preschool teachers in other elementary schools or their district offices. The preschool teachers placed in elementary schools in this study were isolated in their schools and had no knowledgeable mentors available.

School administrators should understand the importance of preschool and how preschool assists in preparing students for kindergarten and other grade levels. “Effective principals ensure high-quality curriculum and instructional practices that foster young children’s learning and development (National Association of Elementary School Principals, 2005, p. 12). School administrators in Virginia should be aware of Virginia’s Foundation Blocks. Administrators must truly understand the role and significance that the Foundation Blocks play in what is utilized and implemented in the preschool classroom. They should be strong supporters and advocates for preschool and what preschool programs can do for the students in their school and/or district. “As leaders in education, principals are well-positioned to speak publicly on behalf of children; they foster young children’s learning and development” (National Association of Elementary School Principals, 2005, p. 14).

How can principals learn about the varying grades levels, specifically preschools, in their particular schools? Are they required to have this knowledge before getting certified? As the instructional leader, the school administrator should be knowledgeable about the stages of development at each grade level and should understand what children are expected to learn at each level, including preschool.

Implications For Further Research

History of preschool classroom environments and subject matter. Each of the preschool classrooms in this study were amazingly identical in terms of atmospheres, learning centers, schedules, activities, and themes. Future research could examine how and why preschool classrooms are so much alike. Preschool classroom environments and subject matter basically originated in the 1800’s and have remained relatively similar over time. It is reasonable to wonder whether or not these environments are still conducive and appropriate for preschool

children in the twenty-first century? How have preschool teachers incorporated advances in technology to prepare their students for the future? To what extent should technology be included in preschool classrooms? What improvements could be made to enhance preschool classroom environments that would increase learning? The importance of this research could determine if preschool classroom environments and content topics are currently providing preschool children with appropriate support in achieving optimal levels of success.

Early Childhood Teacher Preparation Programs. Further research also needs to examine college/university teacher preparation programs to gain a better understanding of how teachers are taught early childhood theories and techniques such as scaffolded instruction. This research should include information and observations on how future teachers are encouraged to practice early childhood theories during student teaching. Currently, elementary certification in Virginia includes grades PK-6 (eight grade levels). Therefore, technically, teacher preparation programs should dedicate one-eighth of their certification coursework to understanding and learning about preschool. Is this being done? Future research could examine the syllabi, topics being covered, and books required for each course to determine what percentage is dedicated to preschool. Lobman and Ryan go further and state “to bring teacher educators together along with the syllabi for their courses to discuss how they approach the teaching of particular topics and the strategies they use to assist students with difficult content (2007, p. 378). They also suggest, “examine exemplary programs to elicit ideas and new perspectives” (Lobman & Ryan, 2007, p. 378).

Teacher knowledge and techniques. It would be interesting to examine why the two less experienced teachers in this study asked questions only during show-and-tell activities. Did these teachers learn this in their teacher preparation programs or were they drawing from

personal experiences, perhaps when they were in preschool/kindergarten? Are teacher education programs teaching appropriate methods and techniques for asking questions, especially higher-level questions? Are future teachers learning how to ask questions throughout the day?

Expectations. Examining teachers' low expectations of students could provide valuable insight. Research has been conducted on the effects of teachers' low expectation for students (Good & Brophy, 2003; Jacobs & Harvey, 2010; Lane, Givner & Pierson, 2004; Lane, Wehby & Cooley, 2006; Rubie-Davies, Jattie & Hamilton, 2006) but has not been conducted specifically for preschool-aged children. What effect does low expectations from preschool teachers have on students during their first years of schooling? Do the preschoolers exposed to low expectations in preschool ever recover from these effects? If so, how long do these effects last? How do the preschoolers overcome these effects?

Having high expectations helps students to achieve higher goals and higher levels of learning. Teachers need to understand the effects and consequences of having low expectations for students. Teachers should build students' self esteem and confidence while assisting them in attaining high goals and expectations.

Collaboration. Collaborating with peers is a vital tool for teachers. Why didn't the preschool teachers in the elementary schools collaborate with their peers? Were the preschool teachers simply not included in the teacher peer group because their work was viewed as different? Or was this a choice of the preschool teachers? Are preschool teachers commonly (physically) isolated in elementary schools, which in turn does not foster collaboration? Is the fact that there is usually only one preschool classroom in an elementary school a factor in lack of collaboration? Why is collaboration important between (a) preschool teachers, (b) preschool teachers and kindergarten teachers, and (c) teachers from grade to grade? Do classroom teachers,

specifically preschool teachers, understand the importance of collaboration? Are principals encouraging collaboration between teachers? Are principals allotting time to ensure collaboration does occur? And, where there exists collaboration, what is the impact on school culture and student learning?

Reflections

As a preschool teacher who works daily, year after year, with four-year-olds, I have learned much from this research study. I learned about the origins of kindergarten, and the name “kindergarten.” This information was very intriguing and has assisted me in understanding the philosophy, curriculum, and techniques that are used in early childhood classrooms every day.

Gaining an understanding of how the Foundation Blocks were created and that early childhood theories were incorporated in that creation supports their validity and importance in the classroom. Standards often have a bad connotation. However, the Foundation Blocks were constructed on sound principles and are vital in maintaining consistency in preschool classrooms across the state of Virginia. They also ensure that important early childhood concepts are being taught in the preschool classrooms.

Delving into the Foundation Blocks also provided insight and understanding into how these standards relate to kindergarten SOL. This will help me in future collaboration meetings with kindergarten teachers and assisting administrators in understanding the importance of implementing the Foundation Blocks in preschool classrooms.

Observing the four preschool teachers in this study provided me with insight into my own classroom practices. As I analyzed each of their classroom practices I began to dissect my own teaching methods. I discovered that I share many attributes with the teachers in the study. I became aware that when asking questions of my students, I tend to ask higher-level questions

that involve reflections and thought (much like the two more experienced preschool teachers in the study). My classroom environment, like the other four preschool teachers, is very much the standard format as described in many preschool teaching materials. I structure my daily schedule by starting with a large group discussion about the calendar, weather, and I incorporate literacy activities. My preschool classroom closely matched those of my participating teachers. However, this research broadened my knowledge of preschool practices and I am exploring alternatives to my current strategies and procedures and experimenting with other possible solutions.

Although the students in the four preschool classrooms were not part of this research, they did indirectly provide insight as to the teachers' interactions with them. As well as these four teachers, I need to incorporate and implement scaffolded instruction into my daily practices. I scaffold instruction but feel that I need to restructure my schedule so that I can spend more one-to-one time with my students. Not only will this provide insight into the individual child's level of knowledge, but it could allow me to support children in stepping forward to a higher level of understanding. This could provide me with valuable time to get to know my students better and to give them the special attention they so crave from me.

In analyzing the data, I had to be critical of the observations of the four teachers' classrooms. I genuinely want to point out that these teachers were extremely helpful. They welcomed research in their classrooms and allowed for observations for three days. They were also willing to take the time to be interviewed on preschool topics as well as provide personal information regarding their teaching history. I feel guilty about the negativity that I had to expose in their classrooms for research purposes. These teachers demonstrated care and concern for their students and it was evident that the students truly loved their teachers. The participating teachers

were willing to openly give of themselves for the purpose of this research. I am truly indebted to each of these teachers for allowing me to conduct my research in their classrooms.

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Appendix A

Comparison of Foundation Blocks to Kindergarten Standards
(created by the researcher)

Foundation Block Standards		Kindergarten Standards	
Literacy			
1a	Listen with increasing attention to spoken language, conversations, and stories read aloud	K.1 a	Listen to a variety of literary forms, including stories and poems
1b	Correctly identify characters, objects and actions in a picture book, as well as stories read aloud and begin to comment about each	K.8c	Discuss characters, setting and events
1c	Make predictions about what might happen in a story	K.8a	Use pictures to make predictions about content
1d	Use two words to ask and answer questions that include actions	K.2d	Use words to describe/name people, places and things
1e	Use appropriate language for a variety of purposes, e.g. ask questions, express needs, get information	K.2g	Begin to ask how and why questions
1f	Engage in turn taking exchanges and rules of polite conversation with adults and peers	K.3a	Begin to follow implicit rules for conversation, including taking turns and staying on topic.
1g	Listen attentively to stories in a whole class setting	K.1a	Listen to a variety of literacy forms, including stories and poems
2a	Use single words to label objects	K.2b	Use words to describe/name people, places, and things
2b	Listen with increasing understanding to conversations and directions	K.3d	Listen and speak in informal conversations with peers and adults
2c	Follow simple, one-step. oral directions	K.2f	Follow one-step. and two-step. directions
2d	Engage in turn taking exchanges with adults and peers	K.3a	Begin to follow implicit rules for conversation, including taking turns and staying on topic.
2e	Use new vocabulary with increasing frequency to express and describe feelings and ideas	K.3b	Express ideas and needs in complete sentences
2f	Expose children to a wide-variety of experiences to build vocabulary	K.2	Use listening and speaking vocabularies
3a	Discriminate similarities and differences in sounds (environmental, letter)	K.7	Develop. an understanding of basic phonetic principles

Foundation Block Standards		Kindergarten Standards	
3b	Identify words that rhyme, generate simple rhymes	K.4a	Identify orally words that rhyme
3d	Listen to multi-syllable words	K.4e	Divide words into syllables
4a	Correctly identify 1-18 alphabet (uppercase) letters by name in random order	K.7a	Identify and name the uppercase and lowercase letters of the alphabet
4b	Select a letter to represent a sound (8-10 letters)	K.7b	Match consonant and short vowel sounds to appropriate letters
4c	Correctly provide the most common sound for 5-8 letters	K.7b	Make consonant and short vowel sounds to appropriate letters
4d	Read simple/familiar high-frequency words, including his or her name	K.6c	Read ten high-frequency words
4e	Notice letters around him/her in familiar, everyday life, and ask how to spell words, names or titles	K.11a	Draw pictures and/or use letters and phonetically spelled words to write about experiences, stories, people, objects, or events
5a	Identify the front of a book	K5b	Identify the front cover, back cover, and title page of a books
5b	Identify the location of the title of a book	K.5b	Identify the front cover, back cover, and title page of a book
5c	Identify where reading begins on a page (first word or group. of words)	K.5c	Follow words from left to right and from top. to bottom on a printed page
5d	Demonstrate directionality of reading left to right on a page	K.5c	Follow words from left to right and from top. to bottom on a printed page
5e	Identify part of the book that “tells the story” (print as opposed to pictures)	K.5	Understand how print is organized and read
5f	Turn pages one at a time from the front to the back of a book	K.5	Understand how print is organized and read
6a	Distinguish print from pictures	K.6a	Explain that printed materials provide information
6b	Copy or write letters using various materials	K.9	The student will print the uppercase and lowercase letters of the alphabet independently
6c	Print first name independently	K.10	The student will print his/her first and last names
6d	Print 5-8 letters with a writing tool	K.9	The student will print the uppercase and lowercase letters of the alphabet independently
6e	Copy 3-5 letter words	K.11a	Draw pictures and/or use letters and phonetically spelled words to write about experiences, stories,

Foundation Block Standards		Kindergarten Standards	
			people, objects, or events
6f	Use inventive spellings to convey messages or tell story	K.11a	Draw pictures and/or use letters and phonetically spelled words to write about experiences, stories, people, objects, or events
Mathematics			
1a	Count objects to 20 or more	K.5	Count forward to 30 and backward from 10
1b	count a group. (set/collection) of three to five objects by touching each object as it is counted and saying the correct number (one-to-one correspondence)	K.1	Identify and describe one set as having more, fewer, or the same number members as the other set, using the concept of one-to-one correspondence
1c	Count the items in a collection of one to five items and know the last counting word tells “how many”	K.2c	Tell how many are in the set by counting the number of items orally
1d	Compare two groups (sets/collections) of matched objects (less than five) and describe the groups using the terms more, fewer, or same	K.1	Identify and describe one set as having more, fewer, or the same number members as the other set, using the concept of one-to-one correspondence
2a	Describe changes in groups (sets/collections) by using more when groups of objects (sets) are combined (added together)	K.6	Add and subtract whole numbers, using up. 10 concrete items
2b	Describe changes in groups (sets/collections) by using fewer when groups of objects (sets) are separated (taken away)	K.6	Add and subtract whole numbers, using up. 10 concrete items
3a	Recognize attributes of length by using the terms longer or shorter when comparing two objects	K.10	Compare two objects or events, using direct comparisons or nonstandard units of measure, according to one or more of the following attributes: length (shorter, longer), height (taller, shorter), weight (heavier, lighter), temperature (hotter, colder).
3b	Know the correct names for the standard tools used for telling time and temperature; and measuring length, capacity and weight (clocks, calendars, thermometers, rulers, measuring cups, and scales)	K.8	Identify the instruments used to measure length (ruler), weight (scale), time (clock: digital and analog; calendar: day, month and season), and temperature (thermometer).
3c	Use the appropriate vocabulary when comparing temperature, e.g.	K.10	Compare two objects or events, using direct comparisons or

Foundation Block Standards		Kindergarten Standards	
	hot, cold		nonstandard units of measure, according to one or more of the following attributes: length (shorter, longer), height (taller, shorter), weight (heavier, lighter), temperature (hotter, colder).
3d	Use appropriate vocabulary when describing duration of time, e.g. hour, day, week, month, morning, afternoon, night, day	K.8	Identify the instruments used to measure length (ruler), weight (scale), time (clock: digital and analog; calendar: day, month and season), and temperature (thermometer)
4b	Match and sort shapes (circle, triangle, rectangle, and square)	K.11	Identify, describe, and draw two-dimensional (plane) geometric figures (circle, triangle, square and rectangle)
4c	Recognize shapes (circle, triangle, rectangle, and square) by pointed to the appropriate figure when the teacher names the shape	K.12	Describe the location of one object relative to another (above, below, next to) and identify representations of plane geometric figures (circle, triangle, square, and rectangle) regardless of their position and orientation in space
4d	Describe the position of objects in relation to other objects and themselves using the terms next to, beside, above, below, under, over, top, and bottom	K.12	Describe the location of one object relative to another (above, below, next to) and identify representations of plane geometric figures (circle, triangle, square, and rectangle) regardless of their position and orientation in space
5a	Collect information to answer questions of interest to children	K.14	Gather data relating to familiar experiences by counting and tallying
5b	Use descriptive language to compare data in objects and picture graphs by identifying which is more, fewer or the same	K.15	Display objects and information, using objects graphs, pictorial graphs, and tables
6a	Sort and classify objects according to one or two attributes (color, size, shape, and texture)	K.17	Sort and classify objects according to similar attributes (size, shape and color)
6b	Identify and explore simple patterns, i.e., AB,AB: red, blue, red, blue	K.18	Identify, describe, and extend a repeating relationship. (pattern) found in common objects, sounds, and movements
6c	Use patterns to predict relationships	K.18	Identify, describe, and extend a

Foundation Block Standards		Kindergarten Standards	
	between objects, i.e., the blue shape follows the yellow shape, the triangle follows the square		repeating relationship. (pattern) found in common objects, sounds, and movements
Science			
1a	Identify basic properties of objects by direct observation	K.1a	Basic properties of objects are identified by direct observation
1b	Describe objects using pictures and words	K.1c	Objects are described both pictorially and verbally
1c	Sequence objects according to size	K.1d	A set of objects is sequenced according to size
1d	Separate a set of objects into two groups based on one physical attribute	K.1e	A set of objects is separated into two groups based on a single physical attribute
1e	Compare the length and mass of different objects	K.4d	Investigate and understand that the position, motion, and physical properties of an object can be described (relative to size and weight)
1f	Identify the body parts that correspond with each of the five senses	K.2a	Investigate and understand that humans have senses that allow one to seek, find, take in and react or respond to information in order to learn about one’s surroundings (five senses and corresponding sensing organs)
2a	Describe the effects magnets have on other objects: they stick to some but not to others. Introduce the words “attracted to” and “not attracted to.”	K.3a	Investigate and understand that magnets have an effect on some materials, make some things move without touching them, and have useful applications (attraction/non-attraction, push/pull, attract/repel and metal/nonmetal)
2b	Describe the effects magnets have on other magnets; they stick together or push apart	K.3a	Investigate and understand that magnets have an effect on some materials, make some things move without touching them, and have useful applications (attraction/non-attraction, push/pull, attract/repel and metal/nonmetal)
3a	Identify colors (red, orange, yellow, green, blue, purple) and white and black	K.4a	Investigate and understand that the position, motion and physical properties of an object can be described (colors- red, orange,

Foundation Block Standards		Kindergarten Standards	
			yellow, green, blue, purple), white and black,
3b	Identify shapes (circle, triangle, square, and rectangle) of an object	K.4b	Investigate and understand that the position, motion and physical properties of an object can be described (shapes-circle, triangle, square, and rectangle and forms-flexible/stiff, straight/curved)
3c	Identify textures (rough/smooth) and feel (hard/soft)	K.4c	Investigate and understand that the position, motion and physical properties of an object can be described (textures- rough/smooth and feel-hard/soft)
3d	Describe relative size and weight (big/little, large/small, heavy/light, wide/thin, long/short)	K.4d	Investigate and understand that the position, motion and physical properties of an object can be described (relative size and weight-big/little, large/small, heavy/light, wide/thin, long/short)
3e	Describe position (over/under, in/out, above/below) and speed (fast/slow)	K.4e	Investigate and understand that the position, motion and physical properties of an object can be described (position- over/under, in/out, above/below, left/right and speed-fast/slow)
3f	Recognize water in its three forms (solid, liquid, gas)	K.5a	Investigate and understand that water flows and has properties that can be observed and tested (water occurs in different states-solid, liquid, gas)
4a	Describe what living things need to live and grow (food, water, and air)	K.6a	Investigate and understand basic needs and life processes of plants and animals (living things change as they grow and need food, water, and air to survive)
4b	Recognize that “baby” plants and animals are similar but not identical to their parents and to one another	K.6c	Investigate and understand basic needs and life processes of plants and animals (offspring of plants and animals are similar but not identical to their parents and to one another)
5a	Create a shadow and describe how it was created	K.7	Investigate and understand that shadows occur when light is blocked by an object
6a	Make daily weather observations	K.8a	Investigate and understand simple

Foundation Block Standards		Kindergarten Standards	
			patterns in his/her daily life (weather observations)
6b	Observe and classify the shapes and forms of many common natural objects including seeds, cones, and leaves	K.8b	Investigate and understand simple patterns in his/her daily life (the shapes and forms of many common natural objects including seeds, cones, and leaves)
6c	Recognize the order or stages of animal and plant growth	K.8c	Investigate and understand simple patterns in his/her daily life (animal and plant growth)
6d	Describe home and school routines	K.8d	Investigate and understand simple patterns in his/her daily life (home and school routines)
7a	Recognize that some objects can be recycled	K.10b	Investigate and understand that materials can be reused, recycled, and conserved (everyday objects can be recycled)
7b	Recognize that some objects can be reused	K.10a	Investigate and understand that materials can be reused, recycled, and conserved (materials and objects can be used over and over again)
7c	Identify ways that energy can be conserved	K.10c	Investigate and understand that materials can be reused, recycled, and conserved (water and energy conservation at home and in school helps preserve resources for future use)
History and Social Science			
1a	Recognize ways in which people are alike and different		No direct correlation
1b	Describe his/her own unique characteristics and those of others		No direct correlation
1c	Make the connection that he/she is both a member of a family and a member of a classroom community		No direct correlation
1d	Engage in pretend play to understand self and others		No direct correlation
1e	Participate in activities and traditions associated with different cultural heritages		No direct correlation
2a	Describe ways children have changed since they were babies		No direct correlation
2b	Express the difference between past and present using words such as	K.2	Describe everyday life in the present and in the past and begin

Foundation Block Standards		Kindergarten Standards	
	before, after, now, and then		to recognize that things change over time.
2c	Order/sequence events and objects		No direct correlation
2d	Ask questions about artifacts from everyday life in the past	K.2	Describe everyday life in the present and in the past and begin to recognize that things change over time.
2e	Recount episodes form stories about the past	K.2	Describe everyday life in the present and in the past and begin to recognize that things change over time.
2f	Take on a role from a specific time, use symbols and props, and act out a story/narrative		No direct correlation
2g	Describe past times based on stories, pictures, visits, songs and music	K.1a	Recognize that history describes events and people of other times and places by identifying examples of past events in legends, stories and historical accounts
3a	Identify and describe prominent features of the classroom, school, neighborhood and community		No direct correlation
3b	Engage in play where one item represents another-miniature vehicles, people, blocks		No direct correlation
3c	Make and walk on paths between objects- ex. from the door to the window		No direct correlation
3d	Represent objects in the order in which they occur in the environment	K.5c	Develop. an awareness that maps and globes show the position of objects
3e	Experience seeing things from different elevations	K.5a	Develop. an awareness that maps and globes show a view from above
4a	Use words to indicate relative location	K.3	Describe the relative location of people, places, and things by using positional words, with emphasis on near/far, above/below, left/right and behind/in front.
4b	Use words to describe features of locations in the environment and man-made structures found in stories and seen in everyday	K.4b	Describe places referenced in stories and real-life situations.

Foundation Block Standards		Kindergarten Standards	
	experiences		
4c	Develop. control in using direction words-on, under, over, behind, near, far, above, below, toward, and away – one direction at a time	K.3	Describe the relative location of people, places, and things by using positional words, with emphasis on near/far, above/below, left/right and behind/in front.
4d	Develop. control in using comparison words-closer, farther away, taller, shorter, higher, lower, alike, different, inside and outside		No direct correlation
4e	Develop. fluency using attribute words-hard, soft, rough, smooth	K.2b (science)	Investigate and understand that humans have senses that allow one to seek, find, take in, and react or respond to information in order to learn about one’s surroundings- sensory descriptors (sweet, sour, bitter, salty, rough/smooth, hard/soft, cold, warm, hot, loud/soft, high/low, bright, dull)
4f	Use labels and symbols for what the child has seen	K.6b (reading)	Identify common signs and logos
5a	Identify pictures of work and name the jobs people do		No direct correlation
5b	Describe what people do in their community job		No direct correlation
5c	Match tools to jobs		No direct correlation
5d	Match job sites to work done		No direct correlation
5e	Role-play the job of workers		No direct correlation
6a	Identify choices		No direct correlation
6b	Recognize that everyone has wants	K.7a	Identify the difference between basic needs (food, clothing and shelter) and wants (things people would like to have).
6c	Choose daily tasks	K.8b	Taking responsibility for certain classroom chores
6d	Role-play purchasing situations where choices are made	K.7b	Recognize that people use money to purchase goods
7a	Cooperate with others in a joint activity	K.8e	Practice honesty, self-control, and kindness to others
7b	Recognize the need for rules to help get along with others	K.8d	Following rules and understanding the consequence of breaking rules
7c	Participate in creating rules for the	K.8d	Following rules and

Foundation Block Standards		Kindergarten Standards	
	classroom		understanding the consequence of breaking rules
7d	State personal plans for learning center activities	K.8a	Taking turns and sharing
7e	Participate in discussing and generating solutions to a class problem		No direct correlation
7f	Share thoughts and opinions in group. settings	K.8a	Taking turns and sharing
7g	Demonstrate responsible behaviors in caring for classroom materials	K.8c	Taking care of personal belongings and respecting what belongs to others
7h	Identify the needs of other people by helping them	K.8e	Practice honesty, self-control, and kindness to others

Appendix B

Directions for Teacher Interviews

*** Please have the copy of the Foundation Blocks with you at the interview so that the teacher has access and can refer to them, if needed.

This is a semi-structured interview. Therefore, please feel free to add to the questions below as information arises in the conversation. Please listen for other interesting and important information that the teacher could elaborate on.

Use interviewing comments/gestures that will probe the interviewee for more information. Some examples are listed below and can be used with any appropriate question.

- "Tell me more."
- "Interesting, how did you come to that?"
- "That sounds exciting, could you elaborate on that more?"
- "Would you please clarify that?"
- "What part did you play in making the decision to _____ ?"
- "What did you say, or do that [did / didn't] work?"
- "What happened?"
- "How do you feel (or what do you think) now?"
- "Could you say something more about that?"
- "Can you give a more detailed description of what happened?"
- "Do you have further examples of this?"
- Repeating significant words of an answer can lead to further elaboration
-

Actions and Facial Expressions that can be used....

- a mere nod, or "mm," or just a pause can indicate to the subject to go on with the description

Questions for the Teacher Interview

1. Can you tell me about how you came into the teaching profession?

2. Have you ever taught other age-groups (grades) other than preschool? If so, what? So how did you get from _____ into teaching preschool? (insert what the teacher taught before into the blank)
3. Will you share with me some of your thoughts about teaching? What does teaching mean to you? What is your philosophy about teaching?(If teacher taught in another area ask this question) How would you say that your personal philosophy differs in teaching preschool than when you taught _____. (Insert what the teacher taught before)
4. Tell me about how you came to develop this personal philosophy? Would you say that your personal philosophy stems from any particular sources? (Better not to provide any examples, and just take what they give.) Use probing questions to get more detailed information.
5. What are some of the ways in which you incorporate your personal theory into your everyday classroom practices? Please, give examples.
6. Do you use a specific curriculum framework in your classroom instruction? If so, what is it? Did you have any input into the selection of this curriculum? Are there ways in which your personal philosophy influences your choice? Do you supplement the curriculum with additional activities and concepts? If yes, please give examples.
7. If you do not use a formal curriculum, how do you determine what important information, concepts, etc should be taught in your preschool classroom? What resources do you use to assist in making these choices?
8. Are the lessons within your curriculum framework tiered (relate to prior learning)? Do the lessons draw on real life situations? Do the lessons allow students to make connections to what they are learning?
9. Were Virginia's Foundation Blocks a factor in the selection of your curriculum? How did they influence your choice?
10. Explain some of the ways in which your curriculum meets the Foundation Blocks standards?
11. How do you ensure that the Virginia Foundation Blocks are being covered in your classroom?
12. Do you think the Foundation Blocks cover all the important aspects within a PreK classroom such as academic subjects as well as developmental areas? Give examples and/or details, if possible.
13. What are your perceptions about the ways in which the Foundation Blocks are written?
14. Do you have difficulty in understanding or interpreting the Foundation Block standards? If so, what are they? Does this difficulty include how

you should implement them or appropriate activities to use in teaching the Foundation Blocks?

15. What kind of support do you have if you have questions, concerns or need clarification in interpreting the Foundation Blocks? Who are the people you go to for help to discuss your concerns?
16. How do you utilize these support systems? Please give specific details or examples if possible.
17. Do you collaborate with other teachers regarding the Foundation Blocks? If so, how?
18. What are the positives of having Virginia Foundation Blocks in preschool? Negatives?
19. Do you think the Foundation Blocks help in preparing children for kindergarten? How?
20. Do you think they correlate with kindergarten SOL?
21. Are the kindergarten teachers in your school aware of the Foundation Blocks and how they are designed to prepare children for kindergarten?
22. Do you have year-end meetings with kindergarten teachers to discuss future students and how the Foundation Blocks have prepared their future students for kindergarten?
23. Do you have any questions or is there anything else you would like to add to our discussion about what we have discussed today?

Thank you very much for taking the time to talk with me today.

Appendix C

Preschool Professional Development Survey

Check the appropriate response.

1. What position do you hold?
 - teacher
 - teacher assistant

2. What other grade levels have you taught or assisted? **(check all that apply)**
 - K-2
 - 3-5
 - 6-8
 - 9-12
 - I have not taught or assisted in any other grade level

3. What is the highest level of education you have completed?
 - high school diploma or GED
 - Associate degree
 - Bachelor's degree
 - Master's degree
 - Educational Specialist degree
 - Doctorate degree

4. Are you licensed to teach? Yes No
 If yes, what areas are you licensed? **(check all that apply)**
 - Preschool
 - K-6
 - 4-8
 - English
 - History & Social Sciences
 - Math
 - Science
 - Special education
 - other \longrightarrow Please identify what other area _____

5. How many total years of teaching or assisting experience do you have?
 - less than 1 year (including the current year)
 - 1-5
 - 6-10
 - 11-15
 - 15-20
 - more than 20

6. How many years of preschool teaching or assisting experience do you have?

- less than 1 year
- 1-5
- 6-10
- 11-15
- 15-20
- more than 20

7. How many years have you taught or assisted in the current school division?

- less than 1 year
- 1-5
- 6-10
- 11-15
- 15-20
- more than 20

8. How many years have you taught or assisted in another school division?

- less than 1 year
- 1-5
- 6-10
- 11-15
- 15-20
- more than 20

Appendix C (continued)

Below are defined ratings to use in the next portion of the survey.

Please read the directions at the top. Of each column for information on the completion of that column.

- Extensive** You consider yourself fully trained in this area.
- Significant** You have had training and feel confident in your knowledge and implementation but need more to improve your skills in this area.
- Limited** You have had very little training and need more to improve your understanding and confidence in order to appropriately implement this area.
- None** You have had no training in this area.

Professional Development Area	Using the above-defined ratings, please select one of the four choices that you feel best identifies your proficiency in this area. Circle your choice.			
9. Implementing pre-reading skills (e.g. phonological awareness, print awareness, concept of word, letter recognition)	extensive	significant	limited	none
10. Implementing pre-writing skills	extensive	significant	limited	none
11. Implementing appropriate fine motor development activities in young children	extensive	significant	limited	none
12. Implementing appropriate gross motor development activities in young children	extensive	significant	limited	none

Professional Development Area	Using the above-defined ratings, please select one of the four choices that you feel best identifies your proficiency in this area. Circle your choice.			
13. Recognizing the stages of cognitive development of young children	extensive	significant	limited	none
14. Incorporating centers into the curriculum	extensive	significant	limited	none
15. Understanding the importance of play in young children’s development	extensive	significant	limited	none
16. Implementing appropriate discipline of young children	extensive	significant	limited	none
17. Incorporating appropriate room arrangements for an early childhood classroom	extensive	significant	limited	none
18. Implementing preschool standards: VA Foundation Blocks	extensive	significant	limited	none
19. Participating in articulation (providing student academic information to the next grade level, from preschool teachers to kindergarten teachers)	extensive	significant	limited	none
20. Involving parents in their child’s education	extensive	significant	limited	none
21. Implementing educational assessments (such as PPVT, PALS-PreK) for 3-5 year olds	extensive	significant	limited	none
22. Understanding the importance of				

Professional Development Area	Using the above-defined ratings, please select one of the four choices that you feel best identifies your proficiency in this area. Circle your choice.			
socialization (e.g. interacting/getting along with peers) in the development of children	extensive	significant	limited	none
23. Creating and incorporating thematic units into the preschool curriculum	extensive	significant	limited	none
24. Understanding how to be a role model for children	extensive	significant	limited	none
25. Helping 3-5 year olds build vocabulary	extensive	significant	limited	none
26. Helping parents build literacy skills at home	extensive	significant	limited	none
27. Implementing appropriate methods when reading to children	extensive	significant	limited	none
28. Scaffolding (building layers) learning in preschool aged children	extensive	significant	limited	none

Please place the survey in the envelope provided and return to me. Thank you very much for taking the time to complete this survey.

Appendix D

Survey Ratings By Teachers

- Extensive** You consider yourself fully trained in this area.
- Significant** You have had training and feel confident in your knowledge/implementation but need more to improve your skills in this area.
- Limited** You have had very little training and need more to improve your understanding/confidence in order to appropriately implement this area.
- None** You have had no training in this area.

*Please note that Susan did not answer three questions therefore her name (response) is not recorded on those questions

Professional Development Area	extensive	significant	limited	none
Implementing pre-reading skills (e.g. phonological awareness, print awareness, concept of word, letter recognition)	Susan Lisa	Molly Amy		
Implementing pre-writing skills		Molly Amy Susan Lisa		
Implementing appropriate fine motor development activities in young children		Molly Amy Susan Lisa		
Implementing appropriate gross motor development activities in young children		Molly Amy	Lisa	
Recognizing the stages of cognitive development of young children	Lisa	Molly Amy Susan		
Incorporating centers into the curriculum	Amy Lisa	Molly Susan		
Understanding the importance of play in young children's development	Molly Amy Susan Lisa			
Implementing appropriate discipline of young children	Molly Amy Lisa			
Incorporating appropriate room arrangements for an early childhood classroom	Molly Amy Lisa	Susan		

Professional Development Area	extensive	significant	limited	none
Implementing preschool standards: VA Foundation Blocks	Molly	Amy Susan Lisa		
Participating in articulation (providing student academic information to the next grade level from Preschool teachers to kindergarten teachers)		Molly Amy Susan Lisa		
Involving parents in their child's education		Molly Amy Lisa		
Implementing educational assessments (such as PPVT, PALS-PreK) for 3-5 year olds	Molly	Amy Susan Lisa		
Understanding the importance of socialization (e.g. interacting/getting along with peers) in the development of children	Molly Amy Susan Lisa			
Creating and incorporating thematic units into the preschool curriculum	Molly Amy Lisa	Susan		
Understanding how to be a role model for children	Molly Amy Lisa	Susan		
Helping 3-5 year olds build vocabulary	Molly Amy Lisa	Susan		
Helping parents build literacy skills at home	Lisa	Molly Amy Susan		
Implementing appropriate methods when reading to children	Molly Susan Lisa	Amy		
Scaffolding (building layers) learning in preschool aged children	Lisa	Molly Amy Susan		