

THE INTERRELATIONSHIP OF
PRE-KINDERGARTEN WRITING AND AN EARLY
CHILDHOOD PLAY ENVIRONMENT

By

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Title of Study: THE INTERRELATIONSHIP OF PRE-KINDERGARTEN WRITING
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Abstract:

The purpose of this qualitative study is to understand the interrelationship of students' writing and developmentally appropriate play environments in a public pre-kindergarten class in Oklahoma. As standards impose literacy requirements on young children, there is an increased need to preserve the early childhood years as a critical time in early development. There is of providing developmentally appropriate experiences that enrich linguistic evidence of the importance of early writing and evidence of play as developmentally appropriate practice. Play that includes writing provides a developmentally appropriate vehicle to deliver writing experiences to children. The theoretical propositions driving this case study are (1) The importance development and literacy based on the guiding principles of developmentally appropriate practice, (2) The notion that young children experiment with and produce writing before they learn to read, which contributes to the child's individual understandings and development relating to writing and to the relationship between thought and words, and (3) The commonly shared constructivist approach to early childhood education which promotes facilitating a child's active engagement, through play, with people and objects in the world to encourage knowledge construction and the ever advancing development of mental structures that are built upon the child's prior knowledge and experiences.

Using an exploratory case study methodology and a constructivist lens, nineteen children were observed in a randomly selected pre-kindergarten class for twelve weeks. The findings indicate that early experiences with writing in the dramatic play environment engage children in writing exploration and conventional writing through writing play that resulted in name writing, alphabet exploration, invented spellings, and writing about family and personal experiences. The study evidences the value of developmentally appropriate play for writing and the importance of play as a constructivist approach to providing pre-kindergarten children writing opportunities that advance the construction of writing knowledge.

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CHAPTER I

INTRODUCTION

As a teacher in a pre-kindergarten classroom, I recall watching countless pre-kindergarten children experiment with writing through scribbling, drawing, writing alphabet letters, writing strings of alphabet letters, writing their own name, writing the names of others, and so on. Through the years, many children were teaching me, as I was teaching them. In a modified writer's workshop approach, the children in my classes were free to and encouraged to bring their writing to me for a conference at any time during free play. During individual conferences, I asked them to tell me about their writing, to tell me a story about their picture. Each conference was unique and the children required different approaches to extending their understanding and to clarifying any misconceptions represented both in their writing and in the oral expression of their message.

It was Addy who helped me to fully understand the power and ability of pre-kindergarten children in terms of writing and writing development. Addy was playing at the writing center one day when she chose to write a book. She selected a booklet from the basket and a marker. The booklets contained four sheets of paper (that were one-fourth of an 8 ½ x 11 sheet of paper) stapled together on the left side. On this day, in this

small book, Addy drew pictures and wrote some random letters on each page. When she completed her project she brought it to me and together we talked about her book. I remember that her pictures were random representations of different activities and various objects with random alphabet letters representing the text. During the conference, I talked with Addy about her book as she dictated the story that I quickly wrote on each page. After praising her work, I suggested that when she wrote, she try to write books that tell a story. I said to her, “Good writers stay on topic” and explained what staying on topic meant.

The next day, as the children played at the various centers in the classroom, Addy returned to the writing center, selected another booklet from the basket, created her book, and brought it to me for her conference. In this book, Addy drew pictures that told the story of a trip she had taken to the mall. Addy, her mother, and her siblings went shopping for jeans, played on the toys, got a cookie, and went home. I recall my amazement that Addy, at age four, was able to apply what she had learned in the writing conference from the previous day to write a story that stayed on topic.

Reflecting on my experiences as a pre-kindergarten classroom teacher, I will always vividly remember this and many other experiences that inform my current role as a curriculum and instructional leader. At the time, I did not realize that understanding specifically what children are capable of and specifically “what” they write while playing with writing in play centers would be so valuable to me, to other teachers, and to pre-kindergarten students. I now recognize and understand the pedagogical implications of my pre-kindergarten student’s work not only on my work as the principal of a pre-

kindergarten center but also on the work of other professionals working with young children.

While I know from my work with young children that pre-kindergarten students do select, engage in, and enjoy writing in play centers, questions relating to understanding the thinking, knowing, and actions behind the written work remain unanswered. Addy's work allowed me to see that children are certainly writers before they truly become readers, just as Clay (1991) indicated. Thanks to Addy (and many others) for showing me the brilliance of emergent writing in pre-kindergarten and for being the motivation for making this study of emergent writing and play a reality.

Interrelated Parts of the Whole

While Addy's story is simple, the field of early childhood education is more complex. Writing for the National Association for the Education of Young Children, Copple and Bredekamp (2006) included physical, emotional, social, and cognitive development as essential to developmentally appropriate practice in early childhood education (p. 7). This interdisciplinary research and the complex knowledge base it reveals reflect the complexity of early childhood pedagogy and influences the decisions made in transferring theory to practice.

Because of its complexity, experts in early childhood education are found in the fields of education, psychology, medicine, neuroscience, linguistics, and philosophy. These disciplines work concomitantly to influence early childhood pedagogy. As the research from these fields informs and directs early childhood pedagogy, the theories become interdependent.

In this study, the researcher identified the following components as the most relevant to early childhood theory, play pedagogy, and writing:

- The theories relating to developmentally appropriate practices in early childhood education and the relationship between developmentally appropriate practices, play, social interactions, and language and literacy development (e.g., Copple & Bredekamp, 2006; NAEYC, 1998; NAEYC, 2009; Piaget, 1962; Strickland & Schickedanz, 2009).
- The connection between early childhood as a time of rapid growth and rapid brain development, learning through social interactions, and expressive and receptive language development (e.g., Jensen, 2005; Vygotsky, 1962/1986).
- The relationships between play, social interactions, and expressive and receptive language development and the translation of this expressive language into symbolic, representational, textual communication (e.g., Roskos & Neuman, 2002; Vygotsky, 1962/1986)
- The influence of the environment on play and written expressions of oral language (e.g., Clay, 1991; Elkind, 2007; Gerde, et al., 2012).
- The overarching and interrelated relationship between play, social interactions, language, and writing (e.g., Clay, 1991; Elkind, 2007; Vygotsky, 1962/1986).

The application of these interdisciplinary underpinnings were imperative to this study and allowed for a full and deep understanding of the study and practical application of early childhood theory, play pedagogy, and emergent writing. These foundational

components of early childhood pedagogy were used to inform and support the study of pre-kindergarten play and early writing. Because an academic (skill-oriented) curriculum with more and earlier direct instruction is being pushed, the teachers of young children are being forced to prepare these children to meet the new state and district requirements. Essential literacy expectations and requirements have become extremely demanding for young children, as both national and state standards are undergoing revisions that increase the demands on young children and teachers of young children (National Governor's Council, 2010). Early writing standards have prompted the need for pre-kindergarten teachers to be more intentional with writing, as a subject, to prepare children for the expectations in kindergarten. In many cases, this demand has resulted in an increase in academic instruction and a decrease in play-oriented activities (Armstrong, 2006). While these practices may seem productive to policymakers, stakeholders, and school leaders who are uninformed, such drills on academic skills contradict the governing guidelines of developmentally appropriate practices in early childhood education (Copple & Bredekamp, 2006; NAEYC, 1998; NAEYC 2009). One alternative is to employ methods that achieve advanced writing skills in developmentally appropriate ways (Copple & Bredekamp, 2006; NAEYC, 2009; National Governor's Council, 2010). This study was seeking an understanding of the interrelationship of students' writing and developmentally appropriate play environments in a public pre-kindergarten class.

Research Questions

Central Question:

What happens to pre-kindergarten children's writing when they engage with

writing in a teacher-created dramatic play environment in a public pre-kindergarten center in Oklahoma?

Sub-Questions:

- a. What happens within the dramatic play environment?
- b. What happens when pre-kindergarten children produce writing while they are engaging in dramatic play?

Framing the Question

Play pedagogy has been used as an effective and widely accepted teaching strategy in early childhood classrooms for centuries. In 380 B. C., Plato wrote, For the free man there should be no element of slavery in learning. Enforced exercise does no harm to the body, but enforced learning will not stay in the mind. So avoid compulsion, and let your children's lessons take the form of play. (as quoted in Wolfe, 2002, p. 9)

Early Childhood educators and researchers have long supported play as a developmentally appropriate practice which contributes to the development of cognitive, social, linguistic, physical, and emotional growth (Copple & Bredekamp, 2006). According to the National Association for the Education of Young Children's (NAEYC) Position Statement on Developmentally Appropriate Practices, developmentally appropriate practices "promote young children's optimal learning and development" (NAEYC, 2009, p. 1). Play is identified in NAEYC's principles of child development as "an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence" (NAEYC, 2009, p. 14). Leading early childhood researchers Piaget (1962) and Vygotsky (1962/1986) solidify the importance of play.

Piaget (1962) situated play in the context of cognitive development which centers on individual interactions contributing to individual cognitive growth. Piaget's theory is considered cognitive constructivism while Vygotsky maintained a social constructivism perspective. Vygotsky (1978) says, "In play a child behaves beyond his average, above his daily behavior" (p. 102). Vygotsky (1967) emphasizes social interactions and the importance of play as a child's way of thinking and problem solving.

Today's pressure for students to accomplish academic skills at younger ages has generated serious concerns relating to the reduction and/or elimination of play opportunities and experiences in early childhood classrooms. Some of the most rigorous academic expectations are associated with early writing expectations (National Governor's Council, 2010).

At the heart of academic pressures are the Common Core State Standards, which include rigorous standards for kindergarten writing and ultimately have had an influence on planning and instruction for writing in pre-kindergarten (National Governor's Council, 2010). Common Core State Standards for writing in kindergarten require that five- and six-year-old children compose opinion, informative/explanatory, narrative, and research texts (National Governor's Council, 2010). In states where these standards are being used and in states whose standards are being influenced and rewritten to reflect the push towards Common Core State Standards, pre-kindergarten teachers are facing a dilemma. At a developmental age when four-year-old children often hold a pencil with a fist and scribble to communicate their thoughts, teachers are obligated to help them develop skills that will prepare them for writing expectations in kindergarten. While encouraging cognitive, physical, and linguistic development is positive, forcing children to function

beyond their developmental capability is counterproductive according to the National Association for the Education of Young Children's position statement on developmentally appropriate practices (Copple & Bredekamp, 2006).

Serving as a catalyst for the discussion and inquiry into emergent writing and developmentally appropriate pedagogy is the work of Clay (1991), who purports that young children naturally explore writing before they learn to read. While development is an individual process unique to each child, the understanding that writing has significant value in emergent literacy carries implications that may challenge traditional instructional approaches in the pre-kindergarten classroom. Clay's (1991) research emphasizes the value of providing opportunities for writing based on the premise that writing is developed through early experiences and is a precursory skill that is foundational for subsequent reading instruction. Clay's (1991) work supports the process as beginning with writing and maintaining a reciprocal ongoing relationship. To optimize writing-reading or reading-writing development, Clay (1991) suggests making a plentiful supply of writing materials accessible to young children to facilitate the writing experiments that will contribute to future reading development. Although "there is no magic time when children become readers and writers," seeing writing as the beginning of the journey to becoming literate carries valuable pedagogical potential (Bennett-Armistead, Duke, & Moses, p. 18).

Educators are in the position of integrating Clay's research and perspectives (1991) and the NAEYC's (2009) position statement on developmentally appropriate practices as pieces of the complex interrelated early childhood education puzzle. Early childhood practitioners seek to provide developmentally appropriate learning experiences

to help children develop cognitively, socially, physically, and emotionally (Copple & Bredekamp, 2006). Strickland and Schickedanz (2009) expand these developmental domains to include linguistic development. Understanding and incorporating these interrelated requirements is complicated and requires intentionality, which is identified as the cornerstone of developmentally appropriate practice as described by Copple and Bredekamp (2006). Applying theories of development, guidelines for developmentally appropriate practices, and literacy development research to classroom practice, early childhood educators rely on the appropriate use of play and play environments as the vehicle for relaying academic content to their young students. According to Isenberg and Jalongo (1993), “The notion of stations or centers offers one way of including play activities in today’s curriculum” (p. 34). Integrating these ideas with Clay’s (1991) notion that children write before they read, teachers seek to provide young children with opportunities to increase their writing and reading skills through intentionally planned classroom activities and through an intentionally planned classroom environment that includes play stations or play centers.

Clay’s (1991) research supports the importance of writing with young children in their overall literacy development and of providing children with a plentiful supply of writing materials. Including writing in play environments is a natural and logical pedagogical practice in early childhood classrooms where learning theories are valued and applied to daily teaching practices. As these theories are lived out with pre-kindergarten students, the question emerges, “What happens to pre-kindergarten children’s writing when they engage with writing in a dramatic play environment in a public pre-kindergarten center in Oklahoma?”

This research project explored the interrelationship between play and pre-kindergarten writing. Early childhood experts encourage play as a vehicle for learning in early childhood classrooms while literacy experts encourage the inclusion of writing materials in the early childhood classroom environment. A limited amount of research looks at the interrelationships among play, which includes purposefully planned writing opportunities, and the preschool child's writing experiments, exploration, and products. The speculations related to the integration of play pedagogy and emergent writing are worthy of study and may have an effect on pre-kindergarten students' writing skills and development. These speculations include the following: (1) Kindergarten standards have increased academic expectations in pre-kindergarten which has had a limiting effect on play experiences for pre-kindergarten children (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010), (2) Play as an instructional approach influences writing development (Clay, 1991; NAEYC, 2009), and (3) writing experiences influence young children's writing development (Clay, 1991; NAEYC, 1998). Early childhood experts encourage play as a vehicle for learning in early childhood classrooms while literacy experts encourage the inclusion of writing materials in the classroom environment. What is known clearly is that play that includes writing provides a developmentally appropriate vehicle to deliver experiences and opportunities to young children.

Purpose of the Study

The purpose of this case study is to understand the interrelationships between pre-kindergarten students' writing and developmentally appropriate play environments in a

public pre-kindergarten class.

Significance of the Study

The most significant factor relating to this study is the pressure on schools, teachers, and young children, imposed by educational standards, to write and read on grade level by the end of third grade as determined by state-mandated reading tests. To accomplish this task, educators must begin laying a strong foundation for literacy early in the formal education process. As emergent literacy begins to develop, early childhood theory must be translated to classroom practices that will support and enhance early development and maintain the integrity of sound early childhood practices. The study explored what happens when children engage in writing experiences in a dramatic play environment during free-choice play, what happens to or with the play, and what happens to or with writing.

Contributing to the significance of this study is the gap in the literature related to this topic. Although a significant amount of research relates to early childhood literacy development, a very limited amount relates to early writing and an even more inadequate amount of research relates to writing as it occurs in a developmentally appropriate dramatic play environment. This study contributed to filling the gap in the existing literature relating to early childhood writing and reading by focusing specifically on emergent writing as it occurred in play activities and in the dramatic play environment.

Theoretical Framework

The potential intersection of early writing experiences facilitated within play environments opens a conversation relating to how young children interact with and experience their world, in this case, the dramatic play environment. Interacting with the

school world consumes a large portion of a child's day. To understand what children are taking away from their experiences within a school setting, teachers should observe each individual child's manipulation of objects as well as the child's interactions with others within the school or classroom environment. While the child's intellectual processing is intangible, it can be better understood through careful observations of the child's interactions with others, vocalization of the understandings, textual creations, or application of the understandings in lived experiences and/or interactions with others. Copple and Bredekamp (2006) discuss the value of observing children in realistic situations: "Such observations are more likely to reflect what children do on an everyday basis and reveal the full extent of what they are capable of doing and understanding" (p.49).

Situating this case study within a constructivist theoretical perspective positioned the study to develop an understanding of what happened in a pre-kindergarten dramatic play environment when pre-kindergarten children engaged in writing opportunities while playing in that context.

According to Patton (2002), "Constructivists study the multiple realities constructed by people and the implication of those constructions for their lives and interactions with others" (p. 96). Early childhood educators understand that children construct knowledge most productively through their interactions and experiences with the concrete world, including other individuals within the concrete world. According to Brown et al. (2007), "Constructivism refers to the understanding one constructs as a result of the experience" (p. 4). Experiences in the early childhood classroom play a fundamental role in the construction of meaning. Constructivism is defined by

Roopnarine and Johnson (2000) as a theory with the shared belief that “providing children with learning environments and opportunities that encourage them to think, make inferences, and solve problems” (p. 159). As pre-kindergarten children individually construct meaning from their experiences, the term constructivism as it is used in this study relates to the construction of meaning by the individual child through interactions and experiences with materials and objects in the dramatic play environment.

“Young children are mentally active learners who are always ‘constructing’ their knowledge or understanding of the world” (Copple and Bredekamp, 2006, p. 17). Their knowledge becomes increasingly more developed as they have time to “process” their experiences and draw upon and build upon them during successive experiences. This study explored how children’s encounters, actions, creations, and verbalizations as they engage with dramatic play materials within the classroom interrelate with writing experiences and creations. Using this information, this research draws upon the experiences of pre-kindergarten children in a case study which is grounded in the constructivist theoretical perspective. The cognitive and social constructivist philosophies of Vygotsky (1962/1986) provide a theoretical perspective to frame the analysis of the social interactions of young children at play and the language they use to communicate both orally and textually.

Although Vygotsky’s (1962/1986) theory of cognitive development was important, his emphasis on social interactions as they relate to speech, language, symbols, and play is especially useful for studying the interrelationships between pre-kindergarten children, emergent writing, and play. Wertsch (1985) highlights three themes found in Vygotsky’s work:

A reliance on a genetic or developmental method; the claim that higher mental processes in the individual have their origin in social processes; and the claim that mental processes can be understood only if we understand the tools and signs that mediate them. (p. 14)

This study seeks to find out what happened to pre-kindergarten children's writing when they engaged with writing in a teacher-created dramatic play environment in a public pre-kindergarten center in Oklahoma.

“The constructivist teacher builds on the knowledge of children's cognitive and emotional growth to shape the curriculum” (Branscombe, et al., 2003, p. 33). In this exploratory research, constructivism was seen as a pedagogical influence on the facilitation of learning in the pre-kindergarten classroom. Vygotsky's constructivist theories were used to interpret the field notes, interviews, and documents related to pre-kindergarten students' use of both existing language and knowledge within a socially derived play setting as a foundation on which to build new understandings and new meanings and therefore, to construct new knowledge.

The purpose of a case study is to explore, describe, or explain (Yin, 2003, p. 3). The purpose of this case study was to explore writing in a dramatic play environment through the actions and interactions of the nineteen children who played there daily. Yin (2003) defines a case study as a study that “investigates a contemporary phenomenon within its real-life context” (p. 13). Boundedness is a distinctive feature of case study research. Cresswell (2014) says that in case study research, the researcher will develop “an in-depth understanding of a case, often a program, an event, activity, process, or one or more individuals, . . . [that is] bound by both activity and time” (p. 14). This case study

focused on the dramatic play environment in the pre-kindergarten class and the engagement of the children in writing activity in that real-life setting. In a case study, the “researchers collect detailed information using a variety of data collection procedures over a sustained period of time” (Creswell, 2014, p. 241). In this qualitative constructivist study, data were collected through observations, interviews, and document analysis over a twelve week period.

Research Design

Grounded in a constructivist theoretical perspective, this qualitative case study employed random sampling. Data were collected from various sources—observations, interviews, and artifacts/documents focused on student participants—which allowed for triangulation to strengthen the trustworthiness of the study. Data collection occurred over a twelve-week period. Observations that led to student interviews and artifacts/documents were approximately 30 minutes in length and were done one time weekly. One teacher/classroom selected from responses to an email invitation sent to the entire teaching staff was chosen in a random drawing facilitated by a third party. To be included in the study, the teacher understood that participation had no effect on the teacher’s evaluation and was strictly voluntary. Permissions were obtained from the university, school district, the volunteer teacher participants, and the students (parents/guardians) assigned to the participating teacher/classroom. The research site was purposefully selected based on the belief that the site allowed for a large amount of high quality data to be collected for analysis. There was no compensation for participation in the study.

Researcher Subjectivity

Early childhood educators who accept the thinking of Vygotsky and Piaget, including the researcher, hold a constructivist view of how knowledge is constructed. Thus, it may be assumed that the researcher's past experiences, both personal and educational, and her professional work in early childhood education have led to the development of notions that have influenced the analysis of the data and reporting of the findings of the study.

The case study research method focuses on exploring the process of pre-kindergarten students' writing as it occurs through experiences with the world and objects that are in the world. To ensure trustworthiness, data collection triangulated data from three sources: observations, student interviews, and documents/artifacts collected during observations of student play sessions. Member checking gave the teacher participant and students' parents/guardians the opportunity to review documents to ensure accuracy in reporting and analyzing data. Purposeful research planning strengthened the trustworthiness of the study, reduced researcher subjectivity, and minimized potential ethical issues.

The study did not delve into any critical issues related to race, gender, or ethnicity and did not explore topics that were biased towards a specific group. The study focused on the pre-kindergarten children in play environments as the play occurred naturally. The study did not discriminate against children. Classes in the school were purposefully balanced to include an equitable opportunity for all students. The school, and therefore the study, followed the district's non-discrimination policy (See Appendix A). There were minimal risks associated with the study.

Ethical Considerations

The choice of research location was purposeful. As the principal of the school where the study occurred, the researcher addressed several ethical and coercion issues to ensure the integrity of the study. A transparent and thorough effort was made to reduce (through identification) potential researcher coercion and subjectivity in an intentional effort to reduce the influence of her position and to assure the trustworthiness of the study. “Researchers need to protect their research participants; develop a trust with them; promote the integrity of research; guard against misconduct and impropriety that might reflect on their organizations or institutions; and cope with new, challenging problems” (Creswell, 2014, p. 92). Creswell (2014) identified some potential ethical issues for each stage of the research process: “Respect potential power imbalances and exploitation of participants” (Creswell, 2014, p. 94). This research design transparently identified the issues associated with the researcher’s power over teacher and student participants. This transparency strengthened the integrity of the study. “With consideration for participants, research sites, and potential readers, studies can be designed that contain good ethical practices” (Creswell, 2014, p. 101).

Feelings of coercion were minimized by using a third party to select the teacher participant in a random drawing and by using a third party to obtain consent from the teacher participant, the parents or guardians of the children selected for the study, and student participants. Using random selection reduced feelings of preference or favoritism between the researcher and the volunteer teachers.

The purposeful selection of the pre-kindergarten center, where more pre-kindergarten teachers are located, as a research site allowed for a greater pool of potential participants, reducing feelings of coercion that might have occurred at a site with fewer

pre-kindergarten teachers. Many schools in the area include pre-kindergarten in the elementary school(s), which reduces the number of pre-kindergarten teachers at one school/site.

Teacher consent forms, student consent forms, and child assent forms clearly informed participants that participation was voluntary and could be discontinued at any time and that there was no consequence for non-participation. Participants and parents/guardians of participants were given the opportunity to review the written documents created during the study to assure the accuracy of the documents. The study was designed to reduce the role of the teacher participant and focus on the students. Consent forms also clarified that the observations were non-evaluative and did not influence current or future teacher evaluations. The class was not observed during instructional times when the teacher participant was providing direct instruction to the class.

Conclusion

This exploratory case study highlighted not only a topic of interest to the researcher but also a topic that has a direct impact on the instructional practices of teachers of pre-kindergarten students and on the instructional leaders of early childhood programs in an effort to ensure that young children have the opportunity to fully and richly experience the transformational first years of life as these years relate to not only their development but also their educational journey. Specifically, this qualitative constructivist research study contributed to a better understanding of pre-kindergartener's writing products as they are produced in a real-life context, the dramatic play center in a pre-kindergarten classroom. It explored the interrelationship between writing and the

dramatic play center activities and was bounded by the setting and activity of the children during the data collection period.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Interdisciplinary factors influencing early childhood pedagogy are integrated when theory is transferred to practice in the context of early childhood education. Early childhood researchers and theorists in the fields of education, psychology, medicine, neuroscience, linguistics, and philosophy work concomitantly to inform and influence early childhood pedagogy. As the literature and research from these fields inform and direct early childhood pedagogy, the theories and applications become interdependent.

For this study, the researcher has identified the following components as the most relevant interrelated influences relating to early childhood theory, play pedagogy, and writing:

- The theories relating to developmentally appropriate practices in early childhood education and the relationship between developmentally appropriate practices, play, social interactions, and language and literacy development (Copple & Bredekamp, 2006; NAEYC, 1998; NAEYC, 2009; Piaget, 1962; Strickland & Schickedanz, 2009).
- The connection between early childhood as a time of rapid growth and

rapid brain development, learning through social interactions, and expressive and receptive language development (Vygotsky, 1980).

- The relationships between play, social interactions, and expressive and receptive language development and the translation of this expressive language into symbolic representational textual communication (Roskos & Neuman, 2002; Vygotsky, 1962/1986)
- The environment's influence on play and written expressions of oral language (Clay, 1991; Elkind, 2007; Gerde, et al., 2012).
- The overarching and interrelated relationship between play, social interactions, language, and writing (Clay, 1991; Elkind, 2007; Vygotsky, 1962/1986).

The application of these interdisciplinary underpinnings is necessary to fully understand the practical application and study of early childhood theory, play pedagogy, and early writing development. Using these foundational components of a high-quality early childhood program, classroom, and teacher, this literature review will include these important facets which cannot be disconnected from a study of pre-kindergarten play and emergent writing as it illuminates a gap in the literature and demonstrates this study's position in the current literature on the topic.

Early Development

Copple and Bredekamp (2006), key contributors to the National Association for the Education of Young Children's (NAEYC) position statement on developmentally appropriate practices, identify physical, intellectual, social, and emotional categories of development (p. 70). Strickland and Schickedanz (2009) identify these categories and add

the domain of language (p. 5). These domains, working together, significantly affect a child's learning and preparedness for school and are linked to later academic success (Strickland & Schickedanz, 2009, p. 11). Strickland and Schickedanz (2009) add key principles shared by the five developmental domains:

- Language and culture strongly influence young children's development.
- Nature and nurture work hand in hand.
- Children vary in every conceivable way.
- Play is essential.
- Motivation to learn is a key factor to school success.
- The developmental domains are interrelated and dynamic. (p. 11)

Quality early childhood pedagogy draws on these domains and principles as a holistic approach to promoting human development. Strickland and Schickedanz (2009) promote a shared responsibility for development that involves families and early childhood educators. Both Copple and Bredekamp (2006) and Strickland and Schickedanz (2009) discuss the lasting impact of early development on living and learning. Skillful, knowledgeable, and passionate early childhood educators facilitate development and provide experiences that involve parents and families in developmentally appropriate early learning experiences for their young children.

Physical Development

As a physician, Montessori understood how closely connected a child's physical growth is to growth in other domains during the early childhood years. Montessori (1966), who wanted to use the world to help the child, invented educational materials to facilitate "sensory education" (Montessori, 1966, p. 29). She organized the first

multidisciplinary teams of individuals from the fields of education and medicine to use sensory education as the foundation for cognitive development (Montessori, 1966). Such teams continue to be used in both regular education and special education today.

As a developmental psychologist, Piaget (1952), like Montessori (1966), honed in on the importance of sensory exploration in early development. While Piaget (1952) focused on both biological and cognitive knowledge, his research identified four stages of cognitive development: sensorimotor, preoperational, concrete operational, and formal operations. Relating to very young children, the first cognitive stage of development is sensorimotor (Piaget, 1952). Development in the sensorimotor stage evolves quickly between birth and two years old. Piaget divided the sensorimotor into six phases in which children use their senses to explore their environment to learn about the world (Piaget, 1954). Piaget's second stage of development, pre-operational, spans development between the ages of two and six (Piaget, 1954). During this stage, children continue to experience rapid physical growth but also experience concomitant growth in the intellectual, social, emotional and linguistic domains as identified by Strickland and Schickedanz (2009) and in the social, emotional, and intellectual categories identified by Copple and Bredekamp (2006). The work of these early childhood experts demonstrates the interdependent nature of early childhood pedagogy, which draws from many disciplines to direct developmentally appropriate learning experiences for young children.

Intellectual Development

Piaget's work informs the understanding of early childhood educators that each individual is "constantly building or constructing" (Branscombe, et al., 2003, p. 61). Piaget's theory "is the only theory in existence that explains children's construction of

knowledge from birth to adolescence” (Kamii & Ewing, 1996, p. 260). Understanding the characteristics of each developmental stage enables teachers of young children to facilitate their development. Constructivist teachers “study, make decisions about, and reflect on the nature of the learner rather than beginning with the curriculum or content within that curriculum” (Branscombe, et al., 2003, p. 29). Learning environments and learning experiences are designed for children based on the idea that learning is an internal process and “begins with the study of the child and his or her interactions with objects” (Branscombe, et al., 2003, p. 29).

Constructivist teachers build on the notion that children are “internally motivated” and design environments that give children opportunities to engage in “authentic and meaningful” tasks (Branscombe, et al., 2003, p. 33). Understanding the basic constructivist assumptions informs the pedagogy related to intellectual, social, physical, emotional, and linguistic development, including the study of play and writing in the pre-kindergarten classroom.

Social and Linguistic Development

Social and linguistic domains are two components of early childhood development that can inform a study of pre-kindergarten emergent writing and early childhood play pedagogy. Physical, intellectual, social, emotional, and linguistic domains are interrelated and naturally integrated into the child’s developmental process. New (2002) and LoRusso (2010) propose that early literacy begins at birth, is progressive, and is influenced by sociocultural experiences. Between birth and age five, language develops rapidly. During this critical stage, children interact with the world through their senses and through social interactions and experiences with their parents and other adults or

caregivers, and with their siblings and peers. As Vygotsky (1962/1986) stated, “From the very beginning a child is brought up in a ‘verbal environment’” (p. 101). Wertsch (1985), who studied with Vygotsky and translated his ideas, theorized that the quality and quantity of social interactions catalyze not only intellectual development but also, simultaneously, language development.

In his work with language, cognition, and socio-cultural interactions, Vygotsky (1962/1986) concluded, “Thought and speech turn out to be the key to the nature of human consciousness” (p. 256). As young children reflect on prior experiences, they become consciously aware of prior knowledge. As they become increasingly aware of their world both cognitively and linguistically, it becomes evident that the connection between thought and word evolves as children develop. “Once a new structure has been incorporated into his thinking – usually through concepts recently acquired in school – it gradually spreads to the older concepts as they are drawn into the intellectual operation of the higher type” (Vygotsky, 1962/1986, p. 203). To Vygotsky (1962/1986) the word is the end result, as the child connects an action to the word (p. 255). Vygotsky’s work sets the process of speech and language development into a social context. He believed that social interaction was the “motivating force” for the transition from the “level of thinking in complexes and pseudo concepts to thinking in concepts” (Wertsch, 1985, p. 107). The relationship between modern neuroscience and Vygotsky’s work with cognitive development, language development, and social interactions, can be found in Wertsch’s (1985) translation of Vygotsky’s (1934) statement, “We have seen that the speech of adults surrounding children, with its constant, determinant meanings, determines the

paths of the development of children's generalizations, the circle of formations of complexes" (Vygotsky 1934/Wertsch, 1985, p. 107):

Vygotsky's claim was that by interacting with adults, children induce or infer the structure of concepts and word meanings that lies behind adult' speech and that this process is motivated by the need to define and redefine word meanings as a result of words being used in various referential contexts. (Wertsch, 1985, p. 107)

Vygotsky (1962) believed that children create speech by mastering the speech of the adults with whom they interact. They do not create their own speech. In terms of both receptive and expressive communication, speech manifests itself in oral language, a prerequisite for oral social interactions. Social interaction stimulates further brain development, and the cycle continues across time. Because of positive experiences with adults and caregivers between birth and three years of age, typically developing children are socially, linguistically, and cognitively prepared for the future of writing and reading with a "burst in vocabulary occurring between 10 and 31 months" (Jensen, 2005, p. 24). Over time, children begin to understand that oral (spoken) language is represented by symbols in written form. This developmental process lays the foundation for literacy.

Vygotsky (1962/1986) studied both development and instruction as interactive processes. His ideas related to development, language and words, social interaction, and the relationship between development and instruction in school strongly influenced this study relating to early childhood constructivist pedagogy: "The relationship between thought and word is a living process: Thought is born through words. A word devoid of thought is a dead thing, and a thought embodied in words remains a shadow" (Vygotsky, 1962/1986, p. 153).

Play Pedagogy and Early Childhood Education

“From infancy, children act on the world around them for the pleasure of seeing what happens; for example, repeatedly dropping a spoon on the floor or pulling the cat’s tail” (NAEYC, 2009, p. 15). According to the NAEYC (2009), play encourages language and cognitive and social competence and enables children to develop problem-solving and symbolic skills as they develop the ability to control and express emotions.

According to the NAEYC’s (2009) position statement on developmentally appropriate practices, “Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence” (p. 14). Play, the work of the young child, provides a vehicle for cognitive, linguistic, social, emotional, and physical development. It is essential for growth in all developmental domains (Strickland and Schickedanz, 2009).

Play and Learning

Play, as a child’s work, is uniquely valuable during the early childhood years. Elkind (2007) emphasizes play as the most powerful mode of learning for children between the ages of two and six. Elkind (2007) promotes a hands-on, self-directed early childhood curriculum in which children are given plentiful opportunities for play (p. 7). Between these ages, play, love, and work continue to be closely linked and “power human thought and action throughout the life cycle” (Elkind, 2007, p. 3). As 21st century early childhood educators seek to balance the mandates for academic instruction at early ages with developmentally appropriate practices, it is helpful to understand the power of play. Elkind (2007) identifies four types of play that children use concomitantly in intellectual, social, and emotional learning: mastery, innovative, kinship, and therapeutic

play (p. 103). Elkind's (2007) discussion reinforces the development domains identified by both Copple and Bredekamp (2006) and Strickland and Schickedanz (2009) and positions play as a central feature in child development.

Along with Elkind's (2007) support of plentiful opportunities for play, Jones and Reynolds (2011) emphasize the value of play in encouraging development: "Complex dramatic play typically happens when no adult is directly involved – when children are on their own in a thoughtfully planned environment, using skills and exploring interests that adults have helped them to develop" (p. 20). Jones and Reynolds (2011) discuss how young children learn through actions with objects in the physical world and interactions with other children. Piaget (1973) also emphasized the importance of actions:

The use of active methods...give[s] broad scope to the spontaneous research of the children or adolescent and require[s] that every new truth to be learned be rediscovered or at least, reconstructed by the student, and not simply imparted to him. (p. 15-16)

The early childhood physical environment is "staged" in anticipation of the interactions with objects and peers that may emerge during children's play experiences. This purposefully planned pedagogy facilitates the construction of knowledge through play which begins with the concrete and gives children the freedom to investigate, explore, and discover as they construct knowledge.

Contributing to the literature on play, Duckworth (1996) theorizes that the individual develops through the "having of wonderful ideas" (p. 12). Duckworth (1996), like many other early childhood experts before her, believes that children should have real experiences with wonderful ideas, that children should be given opportunities to be

creatively stimulated as they engage intellectually with phenomena of interest, and that the side effect of allowing children to be intellectually creative is the stimulation of their “general intellectual ability” (p. 13). Duckworth (1996) contributes to the discussion of developmentally appropriate practices as they relate to facilitating the exploration of children’s ideas and intellectual creativity by suggesting, as did Piaget, that children gain intellectually when they have opportunities to investigate their ideas and that “the having of wonderful ideas, which I consider the essence of intellectual development. . . , depend[s] instead to an overwhelming extent on the occasions for having them” (Duckworth, 1996, p. 13). Opportunities to investigate, explore, or manipulate ideas awaken the imagination and give agency to “play” as young children’s intellectual work.

Understanding how young children learn through play draws the imagination into the equation. Armstrong (2006), who says that “play is a dynamic, ever-changing process that is multisensory, interactive, creative, and imaginative” (p. 73), agrees with Greene (1996), whose ideas on imaginative curriculum highlight the view of appropriate early childhood practices which allow children to be constructors of knowledge when presented with opportunities that support a “release of imagination” (p. 126). Greene (1996) believes that teachers should not offer curriculum and knowledge using traditional methods but rather enable students to make transformations through aesthetic experiences. Capitalizing on a child’s innate imagination, early childhood educators use classroom materials to encourage imaginative play. “What is most extraordinary about play; play serves as a mediator between what is possible and what is actual” (Armstrong, 2006, p. 73); when children play, they are mixing the contents of the real world with the

contents of their imaginations (Armstrong, 2006, p. 74). Imaginative play is a child's natural work.

Imaginative Play

Imagination is the “ability to form rich and varied mental images or concepts of people, places, things, and situations that are not present” (Isenberg & Jalongo, 2006, p. 14). “Self-directed imaginative play itself is the scaffold that mediates young children's learning and is the primary source of development” (Jones & Reynolds, 2011, p. 4). It is commonly believed that young children have active imaginations and that the imagination is most vivid during early childhood.

Considering the increasing trend to push academic curriculum into the pre-kindergarten or preschool years, it is important for early childhood educators to question the reduction or elimination of imaginative play activities during the early years. “In play the child always behaves beyond his average age, above his daily behavior” (Vygotsky, 1978, p. 102). If children perform beyond their average age while engaging in play, their activities result in educational advancement. According to Vygotsky (1978), play frees children's embedded knowledge. According to these notions, the construction of knowledge is most available and most productive when children engage in self-directed play activities.

Between the ages of three and five, children are typically engaged in the pre-operational stage of play (Piaget, 1962). Represented by more than sensory experiences, in this stage children engage in play to re-create their own personal experiences as they make sense of them (Jones & Reynolds, 2011). To Vygotsky (1978), representation is an important feature of imaginative play. He identified the modes of representation as

gesture (body language), talk, play, and writing (Jones & Reynolds, 2011, p. 13).

Representation allows children to practice “familiar scripts from their social and emotional lives” (Jones & Reynolds, 2011, p. 14). New (2002) further explains the notions that development is influenced by more than environmental conditions and that the role of the familiar and social affects a child’s construction of knowledge: “The social features (including relationships and activities) of cultural settings also contribute directly to children’s knowledge construction in culturally specific ways” (p. 248). Vygotsky (1978) believed in the dynamics between culture and child. This emphasizes the view that literacy begins at birth and is strongly influenced by the child’s sociocultural context (Neuman & Roskos, 1998).

As one considers the importance and role of the imagination in tapping into higher mental processes, the importance of the abilities and knowledge of the early childhood classroom teacher emerges in providing opportunities for children to unlock their imagination through experiences with other children and adults in play environments. Free-flowing imaginative play provides opportunities for young children to express and experiment with words, verbal thought, and the use of words as tools for cognition (Vygotsky, 1962/1986). Elkind (2007), Jones and Reynolds (2011), Vygotsky (1962/1986), Greene, (1996), and Duckworth (1996) offer strong support for a study involving play pedagogy and early, emergent, and foundation writing, as writing is closely connected to language development, oral language, and the use of imaginative exploration. “Imaginative play is the medium that frees young children’s embedded knowing” (Jones & Reynolds, 2011, p. 123).

Play and Cognition

Play has historically been recognized as an important aspect of early childhood development. Elkind's (2011) discussion of the intellectual, social, and emotional learning that occurs during play initiated the conversation relating to cognition and play. Morrow and Rand (1991) support the importance of play in citing Piaget's and Vygotsky's different yet complementary positions. Morrow and Rand (1991) apply Piaget's (1952) cognitive theory, which emphasizes the assimilation of new information with past experiences as young children develop representational thought and suggests a series of developmental stages through which children progress as they age and develop intellectually. In his theory, Piaget (1969) identified three types of knowledge through which children progress from concrete to abstract levels of thinking as they age and construct knowledge: social, physical, and logico-mathematical. For Piaget (1969), children discover their world and make sense of these discoveries through experience. As they develop mental structures, they are able to manage increasingly more complicated forms of information. Although both Piaget and Vygotsky are constructivists, their work with young children resulted in differing perspectives. Vygotsky's (1962/1986) theory saw children as extending the immediate stimulus to use symbolic, abstract levels of thought. Vygotsky (1962/1986) focused on the role of social interaction in intellectual development.

Elkind (2007) not only applied what he learned from his studies with Piaget to his own scholarly work; he also draws from Rousseau's work. Rousseau believed that "Children have their own way of knowing and thinking" (Rousseau as quoted in Elkind, 2007, p. 200). Elkind (2007) refers to the developmentally appropriate practice that adults should honor and respect a child's natural approach to knowing and thinking. In addition

to demonstrating that Piaget and Rousseau saw play as tremendously valuable to children in making sense of the world, Elkind (2007) discusses the application of Rousseau's philosophies by Froebel, Montessori, and Pestalozzi. These historical voices underscore the use of play as a means for children to construct knowledge and meaning and provide a historical foundation to the pedagogy needed to provide developmentally appropriate curriculum and programs for today's young children.

The NAEYC's (2009) position statement on developmentally appropriate practices identifies play as an element of positive early childhood teaching and learning that contributes to growth in all developmental domains, including the cognitive domain. Cognitive play represents the combination of the child's "conceptual understandings and experiential background" (Isenberg & Jalongo, 2006, p. 39). Piaget (1962) identified the stages of cognitive play as practice, symbolic, games with rules, and constructions. As modified by Isenberg and Jalongo (2006), the stages include functional play, symbolic play, constructive play, and games with rules (p. 39). The cognitive play stages begin during infancy and continue as children enter school. More complex games with rules continue to inform the concrete and formal operational stages of cognitive development. Paley (2004) discusses the importance of imaginative play and the complex cognitive thinking that occurs during play. Regarding the importance of play in relationship to language and learning, Paley (2004) believes that "the absence of play [is] . . . a major obstacle in their path to learning" (p. 70). Cognitive development through play and the developmental stages of play are examples of the interrelationships between early childhood theory and practice and the importance of further studies focused on how play relates to all of the developmental domains.

Neuman and Roskos (1997) studied “young children’s literacy activity as it was intricately interwoven within settings designed to reflect literacy-related situations in children’s real-world environment” (Neuman & Roskos, 1997, p. 10) and found that “children use the resources and constraints of the social and physical environment as well as their relevant knowledge and skills, to analyze and construct their understanding of print and their world” (p. 19). Using Vygotsky’s theories of language and cognition, Neuman and Roskos (1997) studied the context of early writing in which children use books, paper, writing tools, and cognitive tools, while interacting with their peers in problem-solving situations and reported that a focus on overall literacy development in play supports the notion that children can be drawn into activities that require “cognitive and communicative functions” (p. 28). Materials and context (the environment) play a fundamental role in engaging children in literacy and play experiences. Neuman and Roskos (1997) view literacy as “transformations across events and settings” rather than the acquisition of a series of skills (p. 14). The role and influence of materials on literacy development establishes a context and an argument for further studies on the interrelationship between play and literacy.

Play and Literacy

The discussion of play and the relationship between higher cognitive functioning and play supports the notion that young children who are engaged in play have the potential to engage in activities socially, with either adults or peers, that will enhance their use of literacy materials and promote literacy development. In Morrow and Rand’s (1991) research, the environment and the teacher are two important variables in promoting literacy through play. Their study found a “significantly greater number of

behaviors” evidenced in literacy and play when adult guidance was present and that children participated in literacy-related activities in free play more often when teachers were guiding their use of the materials (Morrow & Rand, 1991, p. 399).

The review of the literature on play and literacy has shown that it is common to find free-choice play centers in preschool classrooms. However, Gerde, et al., (2012) found that in many classrooms, “writing materials were almost exclusively found in the writing center and rarely found in other classroom centers such as dramatic play, blocks, and science” (p. 2). While the inclusion of a variety of play opportunities in the early childhood classroom is promoted, a limited number of classrooms encourage imaginative play and a smaller number of classrooms routinely pair play and writing.

To blend the realms of play and writing, literacy experts such as Clay, the NAEYC, and the International Reading Association (IRA), encourage the inclusion of writing materials in the early childhood classroom environment. However, research to evidence the effect of play environments, including purposefully planned writing opportunities, on the pre-kindergarten child’s emergent writing development is limited. Because play “is the most important activity of early childhood” and “in play children are at their most competent,” early childhood experts must attend to the wonderful idea that writing in play environments positively influences a child’s growth and development (Jones & Reynolds, 2011, p. 15).

In a study examining young children’s play environments and literacy development, Gerde, et al. (2012) argue that when given opportunities to write in play contexts, children write. However, Gerde, et al. (2012) report a lack of information relating to play centers and writing. In addition to the lack of investigation into writing,

the general viewpoint that children will write when given meaningful opportunities does not provide an understanding of the specific types of writing that children create and/or how their writing influences subsequent writing development. These studies indicate that most classrooms do not focus on writing and play environments but on writing in literacy-focused play environments which has led only to information relating to overall literacy development.

To further the topic of writing and early literacy development, Clark and Kragler (2004) contribute a study of the effect of the play environment on the literacy development of preschoolers. Their study revealed that literacy development did occur over the course of the preschoolers' year as a result of including writing materials (chart tablets, writing utensils, name cards, and writing caddies) in the play environment. This study contributes to the understanding of the importance of the context of play and the environmental influence on early literacy development. "By incorporating literacy materials in play-centers, children have the opportunity to explore print in meaningful and functional ways as well as to engage in dialogues with other children about print" (Clark & Kragler, 2004, p. 286).

According to Neuman and Roskos (1997) and Clark and Kragler (2004), literacy development is expanded when literacy materials are offered to children in the play setting. Implications for a study involving emergent writing in the play environment are found in the limited number of studies focused on writing. The study of play and writing within play environments is concerned with what occurs in the play environments and what happens to writing development rather than what happens to overall literacy

development as has been found in Neuman and Roskos (1997) and Clark and Kragler (2004).

In an additional study focused on literacy development, Saracho (2001) finds that play environments can be created to include components that promote literacy development. A qualitative analysis demonstrates that play activities in kindergarten can include language or literacy components. In Saracho's (2001) study, these activities promoted the children's invention of symbols and messages through writing. The researcher's focus was not on the children's acquisition of skills; however, the findings report that environments do influence children's literacy and writing levels in kindergarten. This study supports the philosophy of Neuman and Roskos (1997), who began with the premise that skill acquisition should not be the focus of the study but that the play activities are of greater interest. Saracho (2001) claims that teachers need to analyze their choice of materials to allow children to "acquire and refine" their literacy development (p. 111). With a focus on play and materials in the play environment, further research will contribute to the existing literature on young children and early and emergent writing and will provide practical information to inform the work of early childhood educators.

Play and Environments

In a study involving young children and play, the connection between play and the environment may be seen as natural. According to the Oklahoma State Department of Education (OKSDE) (n.d.), "The intentional design and creation of learning environments is the pedagogical approach early childhood educators use to facilitate learning in the classroom" (p. 1). The appropriate use of the physical environment is

considered a tool to facilitate teaching and learning. Morrow (1990) supports the use of environments to encourage development through play: “Teachers can use [the] physical setting as an active and pervasive influence on their own activities and attitudes as well as on those of their students” (p. 538). Planning so that the physical space contributes to children’s development is an inherent part of the work of the early childhood educator. Because of this common practiced, teachers accomplish much of their work in the classroom before the children arrive (OKSDE, n.d.).

When planning the physical space for young children, educators anticipate how children will use the materials during play and plan opportunities to encourage development by extending play and learning. Jones and Cooper (2006) note that “complexity is more interesting than simplicity” (p. 10) and argue that more learning occurs in more diverse environments because those environments support divergent thinking and intrinsically motivate children because of the children’s high level of interest. Intentionally planned classroom environments that include opportunities for play engage children in open-ended, unpredictable, and complicated interactions. Jones and Cooper (2006) discuss the struggle for simplicity many teachers face because of administrative pressure to “keep order and cover the prescribed curriculum,” while also noting that “smart teachers engage kids in play and games, and smart kids define important work for themselves” (p. 27). In high-quality early childhood classrooms and programs, play comes in the form of purposefully planned learning environments which contribute to growth in the developmental domains identified by Copple and Bredekamp (2006) and Strickland and Schickedanz (2009).

Expanding the literature on play and environments, Isenberg and Jalongo (2006) identify three basic features of quality classroom environments that encourage complex play: climate, space, and time (Isenberg & Jalongo, 2006, p. 222). Climate relates to the emotional aspects of the learning space, the way the space makes children feel. Space can be identified as the organization and planning that go into facilitating active and creative thinking, as the space influences the children's play and learning. Time, refers to the short and long-term planning for blocks of time that give children opportunities for thinking constructively, cooperatively, and expressively (Isenberg & Jalongo, 2006, p. 226). Isenberg and Jalongo's (2006) discussion of play and environment demonstrate the interrelationships between the two as valuable to early childhood pedagogy and to the relationships between play, environments, and literacy, specifically the expressive and creative language required for young children to translate oral language into textual representations of thought. Learning environments are the spaces that provide for play and interactions that facilitate children's divergent and creative thinking and problem-solving. Play is the action giving life to the classroom environment. While climate, space, and time contribute to the complexity of the play environment, Clay (1991) and Gerde, et al. (2012) promote the inclusion of materials in play environments that facilitate literacy development. While this discussion gives credibility to the study of play environments and the intentional selection of materials for play to encourage complex thinking, a gap in the research relating to play environments and early, emergent, and foundational writing continues.

Neuman and Roskos (As quoted in Neuman & Dickinson, 2002) discuss the importance of the environment in literacy development:

“Even in preschool, classrooms need to provide a widespread presence of print and literacy activity in the environment in ways that are accessible to children. . . . For preschoolers, scripts, and roles, pretend play may serve as an important proximal environment of development change that helps children move literacy ideas and interactions from hand to mind.” (As quoted in Neuman & Dickinson, 2002, p. 289)

Roskos and Neuman (As found in Neuman & Dickinson, 2002) rely on Vygotsky’s (1962/1986) idea that environment, peers, and social interaction play a role in learning and development; it is free-flowing imaginative play that engages children in expression and experimentation with words, verbal thought, and the functional use of words as tools for cognition (Vygotsky, 1962/1986). Neuman and Roskos (1987) tie the literature on environments to both the discussion of imaginative play found in the discussion of the imagination and the relationship between play and cognition found in the work of Elkind (2007) and Vygotsky (1962/1986). In play environments, literacy, rather than writing or other more specific components of literacy, continues to be the focus of the existing studies as the interrelated nature of early childhood education is demonstrated in the literature.

As a tool to evaluate early childhood environments, many early childhood professionals employ the Early Childhood Environment Rating Scale (ECERS). The National Association for the Education of Young Children (NAEYC) supports the use of the ECERS in an effort to provide information to directors, administrators, and teachers that will be used to improve the quality of programs for children from 2 ½ through 5 years of age. The literacy, space and furnishings and the communication skills

components in the ECERS demonstrate the importance of planning appropriate environments to facilitate development in all domains. A strong resemblance can be found between what is required in terms of language and literacy on the ECERS and what Vygotsky (1962/1986) outlines as important for cognition, verbal thought, and the use of functional word. Of significance relating to the ECERS is the idea that environments are an important component of the early childhood program and require critical and thoughtful planning not only for development in the intellectual domain but also in the linguistic, emotional, social, and physical domains. Integrating studies on the early childhood environment; the indicators on the ECERS relating to language, literacy, play, and environments; and Vygotsky's (1962/1986) work with language and social interaction reveals important implications in understanding early childhood learning environments. These factors set forth some basic tenets, understandings, and information in relationship to the importance and influence of early learning environments and their role in early childhood development.

Significance of Play

In the 19th century, Froebel emphasized the role of play as central to beneficial early development. Froebel's early work shows that early childhood educators and researchers have long supported play as a developmentally appropriate practice that contributes to physical, intellectual, social, emotional, and linguistic growth and development (Copple and Bredekamp, 2006; Strickland & Schickedanz, 2009). Today's pressure to instill academic skills at younger ages has generated concerns relating to the reduction and/or elimination of play experiences in early childhood classrooms.

As early childhood professionals demonstrate their concern over increasing academic pressures on early childhood programs, the voices of respected organizations, such as the NAEYC support developmentally appropriate practices. Showing concern for the continual changes in standards, expectations, and early childhood practices, Snow (2011), the director of NAEYC's Center for Applied Research, expresses his concern about the "ongoing pressure against play as a valued component of early childhood education and the increasing focus on academic achievement and preparation for standardized tests" (p. 1). Snow blames No Child Left Behind and Common Core State Standards for inciting the expectation that preschool classrooms resemble classrooms for older children. He believes that parents and policymakers often support the use of direct instruction as the approach to meeting these rigorous expectations and that traditional preschools that promote developmentally appropriate practices are facing a slow and imminent death.

In 21st century early childhood classrooms, teachers may be feeling pressured to replace play-oriented opportunities with skill-oriented activities. Literacy and math stations are gaining popularity and centers such as block play, dramatic play, and art are being replaced with these academically focused learning stations. In Armstrong's (2006) view, "Play is becoming more of an endangered species in early childhood programs as academic demands increase" (p. 75). As early childhood educators work to uncover creative and unique pedagogical approaches, the application of NAEYC's (2009) position statement on developmentally appropriate practices is considered in regard to classroom practice. Play pedagogy is an interdependent component in developmentally appropriate early childhood pedagogy.

Social Interactions, Writing, and Play

The integrative nature of early childhood development can be found in the way social interactions in play relates to writing in play environments. Extending the literature on play, writing, and social development, Neuman and Roskos (1997) found that social interactions are a part of literacy learning for young children. Kissel (2009), who contributes to the research on writing within the pre-kindergarten context with a case study on the role of social interactions with peers, also notes the importance of peer influence: “For young writers, explorations of forms and purposes in writing often occur during conversations with peers about topic ideas, moments of peer scaffolding, and periods of peer consultation in which students assume the role of teacher-researcher” (p. 166). The children in the pre-kindergarten class in Kissel’s (2009) study relied on their peers to scaffold new literacy using images and symbols. Kissel et al.’s (2011) study focused on the role of social interactions during writing.

Because play occurs within the context of social interactions, peer interactions become an important facet of the research on this topic. Neuman and Roskos (1997) believe that literacy practice is only one component of children’s focus within the play setting. “Mediating other meaningful activity, the cultural tools and artifacts of literacy were explored and exploited by children as they set about to purposefully participate in their social world” (Neuman & Roskos, 1997, p. 22). Kissel, et al., (2004) agree that children are engaging socially within play environments and that these social interactions influence literacy development. The implications of these studies on a study relating to play environments and early, emergent, and foundational writing development reveals a gap in the research specifically focused on writing as opposed to overall literacy

development. Kissel (2009, 2011) and King (2012) contribute more recent studies that support the notion that pre-kindergarten children do not master writing conventions but develop writing skills as they interact and engage in writing activities. Neither of these studies focuses specifically on play and writing as an interrelated process. Additionally, both Neuman and Roskos (1997) and King (2012) discovered that the mechanics of writing are not mastered at a young age. It is clear that pre-kindergarten children do make progress towards mastering conventional writing skills. Further investigation into writing and play in pre-kindergarten is needed.

Words and Social Interactions

At birth young children begin developing their ability to use words and language appropriately to interact with the world and people in the world. Words can be seen as tools that assist children as they progress developmentally. “The central moment in concept formation, and its generative cause, is a specific use of words as functional ‘tools’” (Vygotsky, 1962/1986, p. 107). Using this theory as a lens, one must ponder the role words play in cognition and therefore the role words play in the early childhood classroom. Based on Vygotsky’s (1962/1986) notion that “real concepts are impossible without words, and thinking in concepts does not exist beyond verbal thinking” (p. 107), the language used by children and observed by their adult caregivers or teachers may be the most important factors in successful early development. The focus of Vygotsky’s (1962/1986) studies included an emphasis on higher mental functions. He was passionately interested in the relationship between thought and language and supported the qualitative and quantitative use of careful observation as a means of understanding

young children. Vygotsky (1962/1986) believed that as children interact with the world, oral language and literacy is woven into their constructed learning.

Vygotsky's (1962) theory becomes particularly important in discussing the integration of many factors influencing early childhood development including: Social interactions, culture, and language development. Wertsch (1985) translates three components of Vygotsky's theoretical framework:

- (1) A reliance on a genetic or developmental method, (2) the claim that higher mental processes in the individual have their origin in social processes, and (3) the claim that mental processes can be understood only if we understand the tools and signs that mediate them. (p. 14)

Vygotsky did not detach individuals from their socio-cultural setting, but rather saw them as functionally dependent. These ideas concurrently create Vygotsky's semiotic perspectives which situate themselves within a range of multi-disciplinary contexts including the social sciences and which work together to reveal Vygotsky's theoretical perspectives (Wertsch, 1985): "To explain the higher forms of human behavior, we must uncover the means by which man learns to organize and direct his behavior" (p. 102). The use of language (word) as a mediation (a means to navigating language and mental thought) which interacts with developmental processes, and the increase in mental functioning which accompanies social processes are keys to understanding Vygotsky's (1962/1986) theories. Because of the interrelationship between developmental method, mental processes, social processes, and mediation (such as language), Vygotsky's (1962/1986) theories are important to understanding the acquisition of language and literacy in early childhood. "The relation of thought to word is not a thing but a process, a

continual movement back and forth from thought to work and from work to thought” (Vygotsky, 1962/1986, p. 219). According to Vygotsky (1962/1986), thoughts connect “something with something else” to develop a relationship between things (p. 218). In the early childhood classroom, a relationship develops between objects and the individuals working together in the learning environment. In the pre-kindergarten classroom, play in specifically planned environments facilitates social interactions and provides opportunities for adults and children to interact in the process of encouraging the construction of meaning and the development of both higher mental functions and language. Play experiences, therefore, are essential for “the use of words as functional tools” (Vygotsky, 1962/1986, p. 107). The ability to “play” with words lays the foundation for positive experiences relating to interactions with others and language. Later in development, these words as spoken thought transition into a written expression of oral language and spoken thought in symbolic form. This transition is multimodal and does not follow a direct linear path.

Literacy and Writing

With increases in the level of reading and writing proficiency needed to function in today’s society, it has become “essential and urgent to teach children to read and write competently, enabling them to achieve today’s high standards of literacy” (NAECY, 1998). A discussion of early writing also requires a discussion of the developmental process involved prior to formal reading instruction. Clay’s (1991) research rests on the notion that struggling readers can be supported with early intervention. She believed, “The first explorations of print in the preschool years may occur in writing rather than reading” (Clay, 1991, p. 108). Clay’s (1991) theory that writing occurs before reading

emphasizes the importance of studying young children and writing. A joint position statement coauthored by the International Reading Association (IRA) and the National Association for the Education of Young Children (NAEYC) states: “Although reading and writing abilities continue to develop throughout the life span, the early childhood years, from birth through age eight, are the most important period for literacy development” (NAEYC, 1998).

Writing and Literacy Development

The literature on early writing is often integrated into the literature related to the broader topic of early literacy. Because of this connection, reviewing the literature on early literacy offers insights into the value and significance of a study on pre-kindergarten writing and play. Clay (1966, 1975, 1991) is known for her research on early literacy which spans four decades. Clay’s (1991) research indicates, early literacy development is not singularly dependent upon oral language but is tied to early writing. She theorized that writing precedes the formal reading process. Children make various marks on the page before realizing that “print carries language messages” (Clay, 1991, p. 96). Clay (1991) identified the process young children work through as they begin to identify and practice using print to carry messages in everyday life and produced the observation task summary to observe and record early message writing (p. 108). Through this exploratory process with writing, young children discover the relationships between letters, words, and utterances and come to understand the process of both writing and reading.

Vygotsky (1962/1986) also studied the process of thought and language acquisition and determined that speech develops in four stages, from primitive speech to

inner speech and eventually to using words as functional tools. According to Vygotsky (1962/1986) this process moves speech from early communicative methods to more advanced communication methods which influence a child's ability to produce writing. Vygotsky identifies the first stage as the "primitive or natural stage corresponding to preintellectual speech or preverbal thought" (Vygotsky, 1962/1986, p. 46). In the second stage, naïve psychology, the child experiences "the physical properties of his own body and of the objects around him, and the application of this experience to the use of tools" (Vygotsky, 1962, p. 46). The third stage, external signs, is marked by the use of "external signs, external operations that are used as aids in the solution of internal problems" (Vygotsky, 1962, p. 47). This stage is characterized by egocentric speech. In the final stage, the ingrowth stage, the child resorts to "using outer and inner operations to use logical memory to operate with inherent relationships and inner signs" (Vygotsky, 1962, p. 47). The child at this stage can think inside of his or her head. This is soundless speech.

According to Vygotsky (1978) these stages of speech development extend beyond the early childhood years, however, as primitive, oral, and inner speech are directly related to emergent literacy and emergent writing. This process of speech development informs a child's more advanced ability to use both inner and outer speech to produce the written form of speech. Without oral language and the ability of a child to think inside of his or her own head, emergent writing is not possible: "Thought development is determined by language, by the linguistic tools of thought and by the sociocultural experience of the child" (Vygotsky 1962, p. 51). Because both speech and sociocultural experiences contribute to the development of thought and language within the child, the social or play experiences of the developing child have an essential role in early literacy

development and emergent writing.

The development of writing ability is readily found in writing experiences that engage children in play activities. Emergent writing exploration is often embedded in familiar and real-life experiences. While engaged in these familiar and real-life play experiences, children “imitate adult models by making their own pretend play marks on paper” (Morrow, 2007, p. 173). “Early writing development is characterized by children’s moving from playfully making marks on paper to communicating messages on paper to creating texts” (Morrow, 2007, p. 172).

Vygotsky (1978) identified modes of representation that lead to emergent writing: gestures, talk, play, and writing (Jones & Reynolds, 2011, p. 13; Vygotsky, 1978). When children begin to talk they babble; when children begin to write they begin by scribbling. Providing children with the tools that are needed to explore writing facilitates their exploration with beginning writing, scribbling. Just as babbling turns into understandable speech, scribbling develops into, “intentional imitation of print in their environment” (Jones & Reynolds, 2011, p. 14). Young children are highly and intrinsically motivated to play. Playing with writing allows children to represent their experiences in a meaningful and understandable way. Children rely on social and cultural experiences as they develop oral language and writing skills, and their representations mature.

Vygotsky (1978) believed that imaginative play frees young children’s embedded knowing (Jones & Reynolds, 2011, p. 123). Practice with “familiar scripts from their social and emotional lives” allows children to develop the ability to “rely on the expression of symbolic meanings” (Jones & Reynolds, 2011, p. 14). The reliance on expressions of symbolic meanings is possible because the context of the learning depends

on early childhood ways of knowing (Jones & Reynolds, 2011, p. 15). Vygotsky's (1962/1986, 1978) studies support active learning through play and demonstrate a connection between thought and language. Both thought and language are considered essential for literacy and writing development.

Clark and Kragler (2004) studied the impact of writing materials on early literacy development in the classrooms of children from low-income families. Their study included the environment and focused on a variety of materials which create literacy-rich environments for young children. In their study of overall literacy development, they found a significant improvement in name writing, letter writing, letter-like formations, and picture drawing from fall to spring. Additionally, Clark and Kragler (2007) found that the children were being taught concepts that "may not have been appropriate for their level of literacy knowledge" (p. 297), a finding that relates to the study of early writing and the pressure for students to achieve more academically at early ages. This information contributes to the literature on overall literacy development but does not focus specifically on writing.

In a more relevant study, Gerde, et al. (2012) noted that writing development is most commonly and frequently supported solely in the writing center. This is a traditional approach to providing pre-kindergarten children with opportunities to write. Clay (1991) encouraged teachers of preschool children to allow children to use paper, pencils, crayons, and cardboard along with big brushes and bright paint to encourage their interest in print. Writing is the activity of expressing ideas, opinions and views in print and is often confused with handwriting or penmanship with young children (Gerde, et al., 2012). Children's writing, including name writing, has an important relationship to later

literacy and reading skills (Gerde, et al., 2012). This line of thinking emerges as Clay (1991) identifies a series of writing explorations which begin with “scribbles that imitate adult cursive, experimenting with letter-like writing, writing names of family members, sending letters to Nana” (p.109). This writing identifies the first steps toward reading print and directs the eye and brain to important features of print (Clay, 1991). As children explore writing, they develop an ability to connect spoken and written language with the hand-eye coordination needed for future writing and drawing.

Through experiences, children begin to make connections between spoken and written words. Dyson, who viewed the development of written language as a symbolic tool, believed “the process of becoming literate is an inherently social one; it entails learning to differentiate and manipulate the elements of the written system in order to engage with, and manipulate, the social world” (As quoted in Neuman & Dickinson, 2002, p. 126). Dyson (As found in Neuman and Dickinson, 2002) relied on the theories of Vygotsky (1978) in discussing the relationship between oral and written language and lived experiences. Vygotsky (1978) believed that alphabet tools emerge for young children because speech gives order to the symbols. Like Vygotsky (1978), Dyson did not view writing development as linear but as a communicative process that evolves from social situations (Neuman & Dickinson, 2002).

Within this process of translating spoken words to written words, children construct knowledge through their social experiences with the world. “Constructivist theory describes children as the creators of language concepts” (Morrow, 2007, p. 76). As children observe adults interacting with other adults and the world through writing, they begin to understand that writing is a functional and important task which is

necessary in everyday life. Children begin imitating adult writing through scribbling and experimental drawing. “When observing children scribbling and inventing primitive texts, researchers have noted that children seem to know what writing is for before they know much about how to write in correct forms (Morrow, 2007, p. 172): “Writing development is a part of a child’s journey to literacy development (p. 173). The work of Morrow (2007) supports the notion that young children are constructors of language and use writing to facilitate their literacy development.

Understanding pre-kindergarten writing requires an understanding of writing development. To assess a child’s writing development, researchers have identified both the stages of writing and the stages of art in an attempt to better understand the process young children engage in as they advance on their literacy journey. Dorn, French, and Jones (1998) list Heenan’s five developmental stages of writing: “(1) Scribble stage, (2) Isolated letter stage, (3) Transitional stage, (4) Stylized sentence stage, and (5) Writing stage” (Dorn, et al., 1998, p. 74). Because early writing often involves drawing, children’s emergent writing can also be assessed or evaluated using the stages of art in relationship to drawing due to the connectivity between early writing and drawing. Kellogg (1979) identified the stages of art as (1) Nonrepresentational or Scribble stage, (2) Emerging Representational, and (3) Representational (p. 96). These stages differ from those identified by Bennett-Armistead, Duke, and Moses (2005) who categorize children’s writing into two main categories, Scribbling and Preschematic (p.143). Within the Scribbling stage, four sub-stages are identified: “Writing through drawing, writing through scribbling, writing through letter-like forms and letter strings, and writing through functional spelling and conventional spelling” (Bennett-Armistead, et al., p. 144-

146). As children advance in writing ability according to these stages, they are considered to advance in their literacy development.

Extending the research on writing development and the stages of writing development, Thompson (2015) studied how scaffolding pre-kindergarten writing skills using reading and writing intervention influenced reading and writing outcomes. Although Thompson (2015) found no significant difference in standardized assessment results between students who did and those who did not receive reading and writing interventions, the study demonstrated the current pressures for students to read on grade level by third grade and highlights the four levels of early writing as indicated by Cabell, Tortorelli, and Gerde (2013):

1. Drawing and scribbling - Children's representations of writing begin with directionless marks leading to environmental text.
2. Letters and letter-like forms - Children use letter-like forms and strings of random letters, beginning to understand letter representations convey meaning and to develop phonological awareness.
3. Salient and beginning sounds - Children begin to use invented spelling and later writing initial sounds of words.
4. Beginning and ending sounds - Writing progresses with students adding the additional ending sound, then medial vowel sounds to words and developing their phonemic awareness and concepts of print.

Although the models represent differing opinions on the classification of developmental writing and drawing stages "reading and writing acquisition is conceptualized better as a developmental continuum than as an all-or-nothing phenomenon" (NAEYC, 1998, p. 3).

“The ability to read and write does not develop naturally, without careful planning and instruction” (NAEYC, 1998, p. 3). Purposeful planning to support children’s meaning-making and development is designed to include opportunities for experiences with reading and writing in play. Jones and Reynolds (2011) conclude that mastery of dramatic play contributes to the development of a child’s representational abilities. The stages of representation, as identified by Vygotsky (1978) are gesture, talk, play, image-making, and writing.

Ray and Glover (2008), who studied pre-kindergarten and kindergarten children’s writing, co-authored a book focusing on nurturing writers in preschool and kindergarten. They report on the complex and layered examples of writing as children were provided with developmentally appropriate practices that support literacy. The classroom that supports this literacy development is supplied with paper and markers of all kinds placed in purposeful locations around the classroom. “The functional writing children do in support of other activities helps them understand the many ways writing can be used as a tool to get things done in the world” (Ray & Glover, 2008, p. 108). This research found that “writing becomes the play and exploration in which children engage” rather than “writing being part of the play” (Ray & Glover, 2008, p. 108). However, Ray and Glover’s (2008) study maintains a specific focus on writing rather than on the play and writing interrelationship.

Within a larger study of writing across the curriculum, Conti (2007) employed naturalistic inquiry to investigate two pre-kindergartener’s revisions within the writing process. In her study, Conti (2007) showed that “the significance of what these two young writers did shows the importance of writing instruction that focuses on the

meaning the writer wants to create” (p. 44). She focused on “the emergent literacy perspective, the significance of drawing to children, drawing as a means by which young children write, revision in young children’s writing, and differences in the revision processes used by young writers” (p. 8). This study demonstrates that pre-kindergarten writing and drawing as a means of writing are important for expressive representations of messages and/or written communication. However, the revising process does not influence pre-kindergarten children significantly because initially, the effort is focused on the writing and certainly not on understanding the print conventions needed for editing and revision.

This review of the literature relating to writing situated within the broader category of literacy has illuminated several studies which provide evidence that pre-kindergarten children do not master the conventions of traditional print (e.g., Clark and Kragler, 2007). The five essential writing concepts relating to early and emergent writing identified by Caulkins (2005, p. 12) include the following:

- Being able to make gross approximations of the 52 geometric forms that constitute the uppercase and lowercase English alphabet.
- Knowing that writing involves recurring letters mixed together in ways that make words and that these letters are not reversible.
- Knowing how to “read” writing with finger and eyes moving from left to right and top to bottom— rather than snaking left to right, then on the next line, right to left—and making a return sweep.

- Knowing that long utterances are represented by longer chunks of print and that when we read, we make oral utterances that accompany—and in some way match – the written marks.
- Knowing that pages in a book are usually not self-contained, but instead, one page combines with the next to create one coherent text. (Caulkins, 2005, p. 12)

Like Caulkins (2005), literacy researchers Ray and Cleaveland (2004) contribute literature associated with teaching writing to young children. Ray and Cleaveland (2004) focus on kindergarten through second grade. They begin assessing children's understanding of writing in first grade. A kindergarten emphasis is also found in Horn and Giacobbe's (2007) book about how a child's talk is transformed into drawing and writing. While kindergarten and grades beyond are important to literacy development, the need for further study to obtain a greater understanding of pre-kindergarten writing is illuminated and supported by these works which focus on writing but do not attend to the importance of writing in the early years.

The need to extend the literature on pre-kindergarten writing has been recognized more recently by Glover (2009), who discusses the gradual and gentle process of encouraging writing with preschool children. As Glover (2009) advocates, beginning the writing process with pre-kindergarten rather than kindergarten is no longer a novel idea but a realistic and necessary idea that is worthy of consideration. Graves (2003) emphasizes this point as he protests teachers' and schools' limiting writing experiences until after children are able to read "without finding out what children really can do" (Graves, 2003, p. 4). Understanding the pre-kindergarten experience as a first and

valuable component of the young child's writing and literacy development can be seen as vital to kindergarten readiness and to the success of today's pre-kindergarten programs.

The review of the research on early writing illuminates the emphasis on overall literacy development and the gap in the existing literature relating to pre-kindergarten writing and more importantly the study of writing as it emerges in play environments. An investigation into what happens when pre-kindergarten children write during play and in play environments will broaden the existing research relating to pre-kindergarten writing and will open the conversation associated with developmentally appropriate alternatives to expanding emergent writing during this impressionable stage of child development.

Writing and Physical Development

The physical developmental characteristics of four-year-old children are important to gaining an understanding of their engagement in writing and play. Copple and Bredekamp (2006) describe children at age four as having an "expanding repertoire of large-muscle skills that are becoming more refined" (p. 77). Small muscle control is also expanding during this stage of development. Children at four can manipulate "scissors, glue, small beads, and paintbrushes with skill" (Copple & Bredekamp, 2006, p. 77). Experienced early childhood teachers understand the individual variances between the specific stages and ages and work to facilitate the physical growth of each child. Because of the variances in children's individual physical development at age four, teachers generally provide a wide variety of materials for both play and structured activities to encourage physical development that will enable children to accomplish individual tasks such as zipping, buttoning, snapping and tying shoes and group tasks such as block building and dramatic play (Copple & Bredekamp, 2006). Fine motor skills

give some children the ability to grasp small objects, use scissors, and hold writing utensils appropriately and use those utensils with accuracy while others hold these utensils with a fist (Copple & Bredekamp, 2006).

“As the child discovers that speaking can be conveyed by print he must set himself the task of understanding many arbitrary conventions which we as adults accept so readily” (Clay, 1975, p. 2). At this juncture in development, children, learning from adults, combine fine motor skills, spoken language, and literacy skills as they draw or write. Clay (1975) says that although many teachers/schools present lessons weekly and/or daily on letter formation, the child’s physical ability to form letters does play an important role in the child’s ability to write both during formal instruction and during creative writing: in schools that had “lessons for forming letters and printing words in addition to daily draw-a-picture and write-a-story activities, the pupils did not appear to differ significantly from those in other schools in the skills they gained” (p. 1). This observation indicates that children who are engaged in drawing pictures and story writing possess writing abilities that are similar to students who have been receiving direct instruction in letter formation. Physical development makes a significant contribution to the development of writing abilities.

Conclusion

Much is known about literacy development in young children that corresponds to what is known about classroom environments and play pedagogy. This literature review has not exposed any findings focused on what happens to writing development when pre-kindergarten children engage in play environments that include writing materials and

opportunities for writing. This gap in the research suggests the need for further investigation on the topic.

Although this review of the literature has revealed a number of studies of literacy development, play, and environments and literacy development, the research on the play environment as an important influence on development is limited. Specifically, this research has not exposed any findings focused on purposefully planned pre-kindergarten play environments and early, emergent, and foundational writing development. This absence indicates a need for further investigation into pre-kindergarten play and early, emergent, and foundational writing.

Much is known about the development of the young child cognitively, socially, emotionally, physically, neurologically, and linguistically which corresponds to what is known about children and play. However, current academic and testing pressures have prompted educators to begin academic and didactic instruction during the early childhood years putting children at risk as they are exposed to developmentally inappropriate pedagogical practices. Because literacy development is critical during the early childhood years, it is important to apply what is certain about child development symbiotically to facilitate essential literacy development. The literature indicating the intersection of sound early childhood theory and sound developmentally appropriate pedagogy to create early learning environments that facilitate early, emergent, and foundational literacy development, could significantly benefit young children and promote positive writing development that will prepare young children for academic expectations in kindergarten and beyond.

The processes reviewed in this literature review lay a relevant foundation on which the study of young children's mental processes, social interactions, play, and receptive and expressive language (manifested in written text) can build to make a significant contribution to developmentally appropriate practices in today's educational setting. The vision provided by a combination of early childhood theories illuminated the idea that children's development in written form must first be situated within the child's understanding of real concepts as demonstrated by their use of words and verbal thought. The significance of this study is supported by the joint position statement by the International Reading Association (IRA) and the National Association for the Education of Young Children (NAEYC): "Although reading and writing abilities continue to develop throughout the life span, the early childhood years, from birth through age eight, are the most important period for literacy development" (NAEYC, 1998, p. 1).

Considering the current push to develop literacy skills at earlier and younger ages, the ability to understand the complex multidisciplinary and interrelated structure of early childhood pedagogy is essential to a developmentally appropriate approach to educating the whole child. Play opportunities and play environments are important factors in developing emergent writing skills at an age when they will have a strong impact on the development of further literacy skills across the lifespan.

Roskos and Neuman (As quoted in Neuman and Dickinson, 2002) note the lack of "a developmental grasp of the design of literacy environments for young children in educational settings that is integrative and research based" (p. 290). They argue that emphasizing the materials as the parts of the environment that contribute to literacy development is insufficient. "More effort needs to be directed to describing and

explaining the relationships between environmental elements (physical and social) and how these combine to support or constrain children's literacy development in the school context" (Neuman & Dickinson, 2002, p. 290). Using this information to design a study involving pre-kindergarten play and early, emergent, and foundational writing strengthens the significance of the study and the potential contributions the study will make as environmental research "enlarges our appreciation of the tremendous power the literacy environment holds over young children's literacy development and achievement" (Neuman & Dickinson, 2002, p. 290).

Supporting the research by Roskos and Neuman (As found in Neuman & Dickinson, 2002) is New's (2002) work relating to early literacy and developmentally appropriate practices, in which she discusses how children's development is influenced by relationships and activities (social features) within cultural contexts. New (2002) reports on the research on "the complex relationship between culture, social activity, and cognition" (p. 246), citing the work of Vygotsky, Bruner, and Rogoff in relationship to understanding sociocultural contexts and socialization within these contexts. Heeding the words of these literacy experts, we should attend to the role pre-kindergarten environments play in social interaction and therefore on knowledge and cognition. These studies demonstrate the importance of research relating to play and writing and the importance of extending the current literature on the topic. This study applies these thoughts on development as a foundation for exploring the role of developmentally appropriate play environments on the development of a child's pre-kindergarten writing exploration, writing experimentation, and writing that manifests itself as emergent writing.

CHAPTER III

METHODOLOGY

Introduction

The methodology used in this qualitative research project stems from a philosophical alignment of theoretical perspective, research methodology, and research methods. This chapter discusses the research design, the methods, the population and sample, the student participants, data collection procedures, and data analysis. Special consideration was given to ethical issues and ensuring the stability of the study with both young children and teacher participants who are employed under the leadership of the researcher. Transparency throughout the research planning, transparency within the study, and intentionally working to both openly illuminate and reduce potential ethical issues strengthened the study.

Research Design

Constructivism

This study maintained the basic tenets of a constructivist theoretical perspective, that humans construct knowledge as they interact with the world and that individuals, including young children, are constructors of knowledge as they are actively engaged in the meaning-making process. There is a natural relationship between early childhood practices and constructivist pedagogy. This connection was supported by Castle (2012)

who wrote that early childhood research is often linked to constructivist theory: “Much constructivist research is on how children construct their ideas about various content areas such as mathematics, literacy, and science (p. 45). Early childhood educators in general believe that children construct meaning as they interact with the world.

“The constructivist viewpoint rests on the assumption that children mentally construct knowledge through reflection on their experiences” (Roopnarine & Johnson, 2003, p. 21). “Constructivism sees children as ‘active constructors of knowledge rather than passive recipients of knowledge handed down by the teacher’” (Castle, 2012, p. 45). To constructivist practitioners, child knowledge becomes increasingly more developed as children have time to process their experiences and build upon them during successive experiences. “Constructivist theory is based on the premise that it is the child’s interaction with the environment that enables the child to use the mental structures she has developed and continues to develop” (Branscombe, et al., 2003, p. 33).

According to Hyde (2015), constructivism evolved from the work of Piaget and “emphasizes how knowledge is constructed on qualitatively different, progressively more adequate levels, as the result of the individual’s action and interaction in the world either alone or with others” (p. 289). This case study research maintained the tenets of the constructivist theoretical perspective that the individual is a constructor of knowledge, that the process of constructing knowledge is intangible, and that not only is knowledge constructed individually but it is constructed through active experiences using knowledge from the child’s prior life experiences.

The constructivist perspective rests on the notion that the child’s interactions with objects and others make the construction of knowledge a shared experience that

facilitates the individual process of constructing meaning. As children engaged with writing materials within the pre-kindergarten classroom, their encounters, actions, creations, and verbalizations were used to explore and understand how their individual experiences contributed to the researcher's understanding of writing in the dramatic play environment. The exploration of these experiences involved a constructivist pedagogical approach which valued play, social interactions, active engagement, and the facilitation of meaning-making using materials in the classroom environment. This research explored pre-kindergarten writing in a dramatic play environment in a case study which was grounded in the constructivist theoretical perspective.

Methods

The intersection of emergent writing experiences facilitated within a play environment initiates a conversation relating to how young children interact with and experience their world, in this case, the dramatic play environment. Interacting with the school world consumes a larger portion of a child's day than interactions at home with parents and family. To best understand what children are taking away from their experiences or interactions within a play setting, the educator can observe a child's individual manipulation of objects as well as the child's interactions with others within the environment. While the child's intellectual processing is intangible, understanding can be gained through observations of the child's interactions with others, vocalizations of understandings, textual creations, or application of the understandings in other experiences. This research explored pre-kindergarteners' knowledge constructions as a result of engaging with writing in the play environment.

Case Study

“Case studies are useful in the study of human affairs because they are down-to-earth and attention-holding” (Stake, 1978, p. 5). Case study research benefits specific audiences and contributes to understanding a particular group. Stake (1978) says the understandings of individuals and groups within specialized disciplines are gained primarily through personal experience but that they are not “suitable for generalization” to all populations (p. 5).

The purpose of case study research is to explore, understand, and describe a setting (Yin, 2003). Yin (2003) identified three types of case study research: “Exploratory, descriptive, and explanatory” (p. 3). In a case study, a variety of data collection methods are used across a period of time. Creswell (2014) defines case study research as a “qualitative design in which the researcher explores in depth a program, event, activity, process, or one or more individuals” (p. 241). The purpose of this case study was to explore the interrelationship between pre-kindergarten children and writing as they engage in play in a dramatic play center.

Stake’s (1995) three categories of case study research are the intrinsic case study, instrumental case study, and collective case study. Each of these has unique characteristics. Intrinsic case studies intend to generalize from within. Instrumental case studies generalize from the case study. In collective case studies, the researcher selects multiple cases to study. Case study research “tends to be researcher-centered, often involving observation on participants; most importantly, it attempts to provide a holistic portrayal and understanding of the research setting” (Cousin, 2005, p. 423).

In this study the researcher collected data through observations, interviews, and document analysis over a twelve-week period. To gain insight into the internal structures

of the experiences of pre-kindergarten children in self-selected free play, the researcher collected, through observation, both the child's descriptions of the experience as well as the researcher's description of the child's construction of knowledge to understand the construction of meaning relating to writing within play settings. Using the child's descriptions, spoken and written, the researcher had the ability to interpret the child's experience. This case study was designed to study pre-kindergarten children's interactions with writing as they engaged in free-choice play in the classroom environment. As children produced written work in the dramatic play setting, the researcher had available, for interpretation, textual creations that were the product of the children's interactions with their world and objects in their world.

These definitions and descriptions of case study methodology illuminated the study of pre-kindergarten children, emergent writing, and play. This exploratory case study was designed to understand what happens to both writing and play as children are able to self-select and engage in these experiences in a typical pre-kindergarten classroom setting. The case study methodology is appropriate as the study involved observations, collecting data in a variety of ways (observations, interviews, and document analysis), and collecting data across a period of time.

Another important characteristic of case study methodology is its "holistic portrayal of the research setting" as described by Cousin (2005, p. 423). It was very important to this study to understand the role of the environment in the experiences that young children have in the classroom setting. This research was founded on a holistic approach to educating young children and the importance of a pedagogical style which

values the interrelatedness of the multiple facets of teaching and learning in the early years.

Theoretical Frame

Early childhood educators understand that children construct knowledge most productively through their interactions and experiences with the concrete world, including other individuals within that world. In terms of developmentally appropriate practices, Copple and Bredekamp (2006) write, “Young children are mentally active learners who are always ‘constructing’ their knowledge or understanding of the world” (p. 17). Their knowledge becomes increasingly more developed as they have time to “process” their experiences and draw upon and build upon them during successive experiences.

As children engaged with materials within the classroom, their encounters, actions, creations, and verbalizations were used by the researcher to describe rather than explain how their individual experiences informed successive experiences. While case study findings are not generalizable, transferring the findings of this case study to other groups of children and teachers became a possibility. Using this information, this research drew upon the experiences of pre-kindergarten children in a study which is grounded in the constructivist theoretical perspective.

The work of Vygotsky (1962/1986), whose theory was derived from his intense studies of Hegel and Husserl, provided a perspective to frame the analysis of the social interactions of young children at play and the language that is used to communicate both orally and textually. Vygotsky’s (1962/1986) studies with children provided constructivist perspectives and insights through which the researcher gained a better

understanding of cognition, language, and social interactions. Although his theory of cognitive development is important, his emphasis on social interactions as they relate to speech, language, symbols, and play was especially useful. Vygotsky's early childhood constructivist perspective was beneficial in understanding how young children's thought and language develops through lived experiences in social settings such as those experienced by children as they interact with others in play settings (Vygotsky, 1962/1986, p. xiv). Wertsch (1985) highlights three themes found in Vygotsky's work: A reliance on the developmental method, the origin of higher mental processes in social processes, and the understanding of mental processes using mediation (Wertsch, 1985, p. 15). Language is identified by Wertsch (1985) as a form of mediation (p. 15).

This study explored what happens to pre-kindergarten children's writing when they engage with writing in teacher-created classroom play environments in a public pre-kindergarten center in Oklahoma. Vygotsky's (1962/1986) theories played an important role in interpreting the field notes, interviews, and documents collected related to pre-kindergarten student's abilities to use both existing language and knowledge, within a socially derived play setting as a foundation on which to build new understandings, new meanings, and therefore, new knowledge.

Theoretical Propositions

The theoretical propositions identified for this case study were (1) The importance of providing developmentally appropriate experiences that enrich linguistic development and literacy based on the guiding principles of developmentally appropriate practice as described by Copple & Bredekamp (2006); (2) the notion that young children experiment with and produce writing before they learn to read, as described by Clay

(1991), which contributes to the child's individual understandings and development relating to writing and to the relationship between thought and words (Vygotsky 1962/1986); and (3) the commonly shared constructivist approach to early childhood education which promotes facilitating a child's active engagement, through play, with people and objects in the world to encourage knowledge construction and the ever advancing development of mental structures that are built upon the child's prior knowledge and experiences (Castle, 2012; Piaget, 1973). These theoretical propositions were used during the data coding process as a tool for understanding the meaning of the children's interactions and engagement with writing at the dramatic play center. These theoretical propositions were also mined for meaning relating to the children's production of writing samples that supported the pedagogical use of developmentally appropriate play activities as a means for them to progress developmentally towards the state standards requirements for pre-kindergarten children.

Population and Sample

This qualitative study employed random sampling. Michael Patton (2002) describes random sampling as serving as "controls for selection bias" (p. 230). Conducting research at the researcher's site of employment poses complicated ethical and coercion issues that were addressed through random sampling and the use of a third party for participant selection and for obtaining parent/guardian consent and child assent. The research site was purposefully selected for two reasons. The first was to take advantage of the emic perspective which enhanced deeper understandings and richer descriptions. For example, the researcher is aware of current practices related to writing as a component of the district's literacy framework. Conducting research at this site allowed

the researcher to collect more detailed and descriptive data as children explored writing in free-choice play centers. Second, the site provided a greater number of potential participants for the study, which reduced any coercion placed on volunteers.

Teacher selection for the study was made by asking teachers to volunteer their classroom as the site of the case study. One teacher from those who volunteered was selected in a random drawing. Student participants were therefore randomly selected as those students who are assigned to the randomly selected teacher participant. The teacher participant drawing was conducted by a third party to determine which volunteer would participate. Random sampling of both a teacher participant and student participants reduced potential ethical and coercion issues relating to conducting the research where the researcher is employed as a school administrator. A possible feeling of coercion was reduced through the volunteer email, which clearly notified potential volunteers that there was no penalty for non-participation. The random selection of the one classroom eliminated the researcher's subjectivity in favor of one individual teacher over another.

The school administrator assumed the role of the researcher during data collection. The students were comfortable with the researcher's presence in the classroom because the administrator visits the classroom daily and has multiple interactions with the students during classroom visits, breakfast, lunch, drop-off, pick-up, and busing routines. The researcher's (principal's) presence in the room did not restrict student activities but presented a challenge as students attempted to interact with the observing researcher. Maintaining a neutral and non-participatory distance from the observed center reduced these interactions. The established relationship positively influenced the interview process. Considering that the children are four years old, the interviews were more

comfortable and conversational and yielded a larger quantity of data than would have been obtained by an unfamiliar individual/researcher.

Sampling Procedures

While participant selection was random, site selection relied on a qualitative constructionist approach, which employed purposeful sampling. Creswell (2014) stated that “the idea behind qualitative research is to purposefully select participants or sites that will best help the researcher understand the problem and the research question” (p. 189). Using this description of purposeful sampling, the researcher selected a teacher participant at a pre-kindergarten center where writing is a routine practice and is included in the district’s literacy requirements.

Research Site

The researcher is the school principal at the selected research site. The ethical issues associated with this location were counterbalanced by many positive and beneficial factors. These issues included reducing the potential feelings of favoritism between the researcher and selected participant and reducing the potential feelings of inequity in teacher selection and in student selection. It was also important to address and reduce the potential feelings that teachers were expected or required to volunteer for the study and that non-participation could potentially influence teacher evaluations. Because of the importance of effective teacher evaluations, the concerns over how participation in the study might influence teacher evaluation warranted attention. To avoid ethical issues related to teacher evaluation, the researcher clearly identified the expectations of the teacher during the study. Other issues that were addressed included concerns over what would be written up about the classroom and the students as well as the concerns of

teachers and parents/guardians related to confidentiality. These ethical issues are counterbalanced by the positive reasons for selecting the school as the site for the study. The site is the largest public early childhood center housing only pre-kindergarten students within a 50 mile radius of the researcher's workplace and home. The school employs fifteen pre-kindergarten teachers, which is a large number of potential volunteer teacher participants. The size of the school reduced the coercion that might be present in area schools that are much smaller and employ as few as four pre-kindergarten teachers. For example, asking for one volunteer from a staff of four would definitely exert a greater degree of coercion or pressure on those being asked to participate. The researcher's identity as a school administrator is known and would be known to teachers in area schools just as it is known in the researcher's home school and district.

The selected pre-kindergarten site maintained a clear focus on four-year-old children and early childhood pedagogy. This focus enhanced data quality and collection because the site did not house students of any other age or grade level. The researcher, as the school administrator, had an emic perspective, which provided a deeper understanding of the research site and research participants. The researcher's emic perspective was identified as researcher subjectivity at the onset of the study. Patton (2002) states, "Methodologically, the challenge is to do justice to both perspectives (emic and etic) during and after fieldwork and to be clear with one's self and one's audience how this tension is managed" (p. 268).

Teacher Participants

One volunteer teacher participant was selected to participate in this research study. The teacher was asked to do two things: (1) *Allow the researcher to observe*

students in the classroom, and (2) Include writing materials in the dramatic play center.

The role of the volunteer teacher was intentionally minimized by limiting the direction or instructions she was given. Not only did limiting control allow students to naturally engage in teacher-created play environments, but limited research control reduced the potential for issues relating to teacher performance, classroom management, and teacher evaluation. This study was designed to focus on students rather than on classroom teaching, teaching methods, and teacher perspectives. Observations did not occur at a time when the teacher was providing direct instruction to the students in the class. Had the randomly selected teacher withdrawn from the study, the recruitment process would have been repeated to select a replacement teacher and student participants.

Ethical issues related to selecting a teacher participant from the school under the leadership/administration of the researcher were identified and addressed in the research design. Potential ethical issues were openly identified and reducing them was prioritized at the onset of the planning phase. A group email invitation offered the opportunity to participate equally to all teaching staff. The researcher randomly chose from the volunteers in a drawing conducted by the school secretary. This process eliminated selection bias. The study focused on the activities and work of students and minimized the role of teaching and instruction and the role of the teacher participant to reduce potential issues and coercion placed on the teacher. To further reduce the ethical issues associated with the study, teacher, student, and child assent forms assured potential teacher participants that no risk, personally or professionally, was associated with their participation in the study. Permissions were obtained from the university, school district, the volunteer teacher participant, parents/guardians, and students.

The purposeful efforts of the researcher to ensure minimal risks to teacher participants were explained transparently, for example, that the focus was on students rather than the teacher or teacher's perspectives. The researcher asked the teacher participants to allow the researcher to observe and include writing in the dramatic play environment.

The research design required the random selection of teacher participants, from the volunteers. This prevented eliciting feelings of favoritism or preference from the researcher towards the volunteer teacher. The opportunity for teacher participants to member check the data and reports, review and approve the researcher's data collection and analysis as it relates to them ensured trustworthiness. Volunteer teacher participants could have withdrawn from the study at any time without any consequences.

The researcher's intent was to minimize the "staging" or "control over" writing in play environments by asking volunteer teachers simply to include writing in play centers. To be included in the study, the teacher had to understand that their participation had no effect on their teacher evaluation and was voluntary.

Student Participants

One class, serving up to twenty pre-kindergarten public school students (four and five years old), was selected for this study involving pre-kindergarten writing and early childhood play pedagogy. The students were randomly selected as their teacher was also randomly selected in a drawing. Teacher consent and child assent were obtained through a third party who met with the parents/guardians of the students. Only students whose parents/guardians gave consent were included in the study; however, all nineteen potential participants had parental consent and every child also gave assent. If some

students had not been permitted to participate, plans for the non-participating students were made to ensure that those children were offered the same educational opportunities for play and writing as those who were participating. Data collected would have been sorted into those who were participating and those who were not participating. Documents from non-participating students would have been set aside from the documents collected from participating students.

The participating students were observed while engaging in routine play activities. Written work samples were collected from students as they were created during play. Photographs of student written work samples were taken when it was not physically possible to collect the original work, such as when the child had written on a dry erase board or a chalk board. Brief age-appropriate interviews were conducted with the students who had created writing or drawing products during play.

Student participants for this study were young children. Selection was purposefully planned with an effort being made to attend to the ethical issues related to doing research with young children. According to Lesley Abbott and Ann Langston (2005),

Most important in undertaking research with very young children and their families, and the practitioners who work with them, is that the methods should be ethical, involve the use of appropriate approaches and fit the purpose in hand, thus ensuring that the picture revealed is as true and accurate as possible. (p. 39)

To ensure the integrity of the study, strengthen the trustworthiness of the study, and identify and reduce potential ethical issues relating to this study, the researcher began by selecting a teacher participant. The students assigned to the randomly selected volunteer

teacher participant were the students selected for the study. This made student selection random.

After teacher and student participants were identified, the researcher obtained consent from student participants as quickly as possible in the first semester of the school year. Because students and families are new to the school and students attend the school for only the pre-kindergarten year, gaining consent early in the first semester limited the relationship between the researcher and the parents/guardians and reduced potential coercion caused by the researcher's position in the school. Consent was obtained from student participants through a third party who met with and explained the detailed parent/guardian consent form and the child assent form. The researcher collected data from students based on voluntary parent/guardian consent and from students based on the child's willingness to participate.

To assure the parents that the study was risk-free and had no adverse effects on their children personally or educationally, the researcher allowed the parent/guardian of student participants to review and approve the researcher's data collection and analysis, upon request, as it related to their child. Student participants were given the opportunity to withdraw from the study at any time without any consequences at the request of their parents or guardians. Although there were no consequences for student(s) whose parents refused participation, all of the students in the class were granted permission to participate. The researcher obtained permissions from the university, school district, the volunteer teacher participant, students, and the parents/guardians of the students in the participating teacher's classroom.

Data Collection Procedures

Data collections occurred over a twelve-week period. Three data sources were selected: observations, interviews, and artifact/document analysis. Collecting three types of data allowed for triangulation to provide variety in data types and to strengthen the trustworthiness of the study.

Pseudonyms were used in place of the children's real names in data analysis and reporting of findings to protect student identities. The data collected during the observation and interview process were kept locked in the researcher's home filing cabinet and will be destroyed one year from the conclusion of the study. Electronic data were deleted from any/all electronic devices used: the researcher's computer, the researcher's digital recorder, and the researcher's iPad.

Observations

For twelve weeks, one weekly observation, interview, and document/artifact collection session occurred during the participating class's free choice center play for approximately 30 minutes. The researcher used an observation notes form (See Appendix A) on the researcher's iPad to collect field notes and jottings during observations. The iPad was also used to collect photographs of student work samples as needed.

One class, of nineteen students was selected for this study of pre-kindergarten writing and early childhood play pedagogy. Of the nineteen participants, every child had consent to be included in the study. The students were observed while engaging in free play center activities. Written work samples created during the play activities were collected from students as they were created during play. Photographs of student written work samples were taken when it was not physically possible to collect the original work, such as when the child had written on a dry erase board or a chalk board. The data

collected during the observation and interview process were kept locked in the researcher's home filing cabinet and were destroyed one year from the conclusion of the data analysis and research study. Electronic data will be deleted from any/all electronic devices used including: The researcher's computer, the researcher's digital recorder, and the researcher's iPad.

Interviews

Immediately following the observation session, the researcher individually interviewed the students who had created written works to better understand what the child had written and/or created and to better understand the child's purpose and thinking behind the document/artifact. The interview prompts were simple and open ended. (1) Tell me about your *work*. (The researcher said *drawing, picture, writing, or creation* instead of the word *work* depending on what the child had written). (2) Tell me the story about your picture. This prompt was used if the child had drawn a picture during the play experience. (3) Is there anything special you want me to know about this *work (drawing, picture, writing, or creation* depending on what the child had made)? The interviews were transcribed and saved electronically for the data analysis and coding process.

Documents/Artifacts

Student work samples were collected during the observation. These pieces of work were photocopied and the work was returned to the child in its original form. In the event children created writing using temporary materials such as dry erase board or chalk boards, the researcher took a photograph of the document to preserve it for future analysis. Permission was obtained to collect student work samples and to photograph the

student's work. The identity of the students remained confidential in the data analysis and reporting of findings.

Data Analysis

Yin (2003) said it is vital to include in the case study research design a working plan for data analysis: "The analysis of case study evidence is one of the least developed and most difficult aspects of doing case studies" (p. 109). Yin (2003) identified three strategies commonly used for the analysis of case study research: (1) relying on the theoretical propositions, (2) rival explanations, and (3) case descriptions. The preferred approach is to follow the original propositions which have driven the study; doing so helps the researcher to focus on certain data and ignore irrelevant data (Yin, 2003). The second strategy requires rival explanations to be "defined and tested" (Yin, 2003), a strategy that is very useful when doing evaluations. Finally, the third and least favored method is to develop "a descriptive framework for organizing the case study" (p. 114).

In addition to these general strategies, Yin (2003) identified analytic techniques that "are to be used along with any of the general strategies" (p. 115): pattern matching, explanation building, time-series analysis, logic models, and cross-case synthesis. Yin (2003) stressed the importance of a high-quality analysis when completing case study research and provided four principles to ensure quality in data analysis. First, the analysis should attend to all the evidence; second, the analysis should address all major and rival interpretations; third, the analysis should address the most significant aspect of the case study; and fourth, researchers should use their prior knowledge in the case study (Yin, 2003, p. 137). For this study, the researcher used what Yin (2003) describes as the "most preferred" strategy, "relying on theoretical propositions" (p. 111). The researcher chose

to use the founding propositions of the case study research to clearly define a consistent case study research design with an informed data analysis plan.

Other data analysis considerations were found in both taking apart the data and putting it back together. While the data were being collected, over twelve weeks, the researcher began the analysis process. For example, field notes were polished and the interviews were transcribed each week. An initial analysis of observation notes and documents was done weekly as well. Working with the data while it was fresh preserved accuracy and allowed the researcher to manage the data analysis as an ongoing part of the collection process. Creswell (2014) suggested “winnowing” the data to separate into that which is useful and that which is disregarded (p. 195). Creswell (2014) recommended following a general six-step procedure for data analysis:

Step 1. Organize and prepare the data for analysis. Step 2. Read or look at all data. Step 3. Start coding all of the data. Step 4. Use the coding process to generate a description of the setting or people as well as categories of themes for analysis. Step 5. Advance how the description and themes will be represented in the qualitative narrative. Step 6. Interpret the findings or results. (p. 197-200)

The traditional coding procedure for highlighting and categorizing important bits of information was used. The data were saved and printed for manual manipulation.

Original copies of the observation field notes were reviewed, reflected upon, reconsidered, and re-categorized multiple times to ensure the suitability and accuracy of the emerging themes. Once the emerging themes were identified, both the electronic and hard copies of the notes were used for further theoretical analysis. The researcher hand-coded the data as it was collected each week.

These theoretical propositions were used during the data coding process as a tool for understanding the meaning of the children's interactions and engagement with writing at the dramatic play center. As the data were analyzed, the observation field notes, the transcriptions of student interviews, the researcher's reflective journal, and the student documents were deconstructed into smaller units for thorough analysis. The coding process involved considering each unit's contribution to the understanding of the theoretical propositions. These propositions included a search for data that related to developmentally appropriate practices, to how children explore writing before they are readers, to the construction of knowledge, and to the construction of knowledge based on prior knowledge and experiences.

Observations

Observational data were collected on an electronic observation form (See Appendix A) that was also used for electronic organization and coding. The form documents the observation site and the date; identifies the teacher/class; numbers the observation; and provides space for field notes, researcher notes (head notes) during the observation, and for questions for future investigation. In addition to the electronic observation form, the researcher used a field notebook for sketching and diagrams.

Interviews

Interview transcriptions followed the same analysis and coding process as was used for the observation field notes and jottings. Once the transcriptions were complete, they were analyzed using color-coded highlighting. Again, these bits of data were collected by emerging themes and were printed for both preservation and hand manipulation. This process was revisited multiple times to ensure the suitability of the

data placement into emerging themes. Once emerging themes were identified, both the electronic and hard copies of the sorted, categorized, themed field notes, and transcriptions were used for further theoretical analysis.

Documents and Artifacts

Documents and artifacts were collected and used to support the observations and interviews. They provided visual evidence to support the narrative description of the children's work, which established trustworthiness within the study. The alignment of observation, interview, and documents/artifacts evidenced the honesty and integrity of the researcher.

Theoretical Analysis of Data

The researcher looked for emerging themes within the data. Individually, the emerging themes from data collected in one pre-kindergarten class were analyzed using Vygotsky's (1962/1986; 1978) social constructivist approach to understanding how meaning is constructed through interactions with people and objects in the world.

From a constructivist perspective, Yin's (2003) process of data analysis relying on theoretical propositions was used to carefully search the data for structures or themes. The ultimate purpose in this case study was to increase understanding. The exploration and understanding of the construction of meaning in observation field notes, interview transcripts, and student-created artifacts was the researcher's focus in data analysis.

The data intended to respond to the researcher's questions:

Central Question:

What happens to pre-kindergarten children's writing when they engage with writing in a teacher-created dramatic play environment in a public pre-kindergarten center in Oklahoma?

Sub-Questions:

- a. What happens within the dramatic play environment?
- b. What happens when pre-kindergarten children produce writing while they are engaging in dramatic play?

Trustworthiness

Michael Patton (2002) discussed the terms used in qualitative research to indicate quality compared to terminology from traditional social science. Patton (2002) used the word "trustworthiness" as a culminating term that represents credibility, transferability, and dependability (p. 546). Castle (2012) defined trustworthiness as, "The extent to which a qualitative study is truthful and accurate" (p. 191). For this qualitative study, the research design was intentionally planned to identify and reduce researcher subjectivity, identify potential ethical issues, minimize potential ethical issues through purposeful planning, triangulate data to capture multiple perspectives, and provide opportunities for member checking for teacher and student participants. Transparently identifying and discussing these actions and measures strengthened the trustworthiness and credibility of the study.

Limitations

One limitation of the study was the researcher's relationship with the school and teaching staff. In the research design and planning stage, the subjectivity and ethical considerations were identified and attempts were made to reduce or minimize these

issues. In spite of the researcher's efforts to reduce and minimize these potentials, the risk remained, as unanticipated events can occur during any study.

A second limitation to this study is the researcher's subjectivity caused by previous experiences in the field of early childhood education. The amount of experiential knowledge could potentially affect presuppositions, opinions, dispositions, misunderstandings, and attitudes relating to the topic. Although the researcher's philosophical bias towards the constructivist perspective was identified, intentional efforts were made to reduce or address personal opinions and assumptions during the data analysis process.

The study did not delve into any critical issues related to race, gender, or ethnicity. However, the study did not discriminate against children. Classes in the school were purposefully balanced to include an equitable opportunity for all students. Enrollment policies followed the school district's non-discrimination policy (See Appendix A). There were minimal risks with this study.

CHAPTER IV

FINDINGS

Introduction

This purpose of this exploratory case study was to understand the interrelationship between students' writing and developmentally appropriate play environments in a public pre-kindergarten class. Engaging a case study methodology, the researcher collected data in a pre-kindergarten classroom in a public school setting in Oklahoma. The constructivist influence and a developmentally appropriate approach were found in the classroom that was randomly selected for this study.

Constructivist Approach

The pre-kindergarten free choice center sessions observed in this study provided the children with their choice of free-play opportunities that encouraged active exploration and experimentation with objects and materials. The observed sessions were not teacher-directed but were student-centered. The teacher interacted with the children during play. However, she did not control the play. The children were not required to do paper and pencil tasks and the children were not engaged in rote memorization or skill-specific tasks during the free-play. During the observations, the free-choice centers facilitated play and student-led exploration of the learning materials at each center, including the dramatic play center, which provided materials for writing.

Authentic student-driven free play was the focus of the play session. Because the dramatic play center allowed the children to build on existing knowledge from prior experiences, the children's explorations and experimentations within the center enabled the children to construct new knowledge as they engaged with the purposefully planned classroom environment.

Theoretical Propositions

The identified and most preferred strategy for data analysis in case study research is relying on the theoretical propositions (Yin, 2003). Doing so allowed for a methodologically consistent analysis of observation, interview, and document data. The theoretical propositions driving this case study were (1) The importance of providing developmentally appropriate experiences that enrich linguistic development and literacy based on the guiding principles of developmentally appropriate practice as described by Copple & Bredekamp (2006), (2) The notion that young children experiment with and produce writing before they learn to read, as described by Clay (1991), which contributes to the child's individual understandings and development relating to writing and to the relationship between thought and words (Vygotsky 1962/1986), and (3) The commonly shared constructivist approach to early childhood education which promotes facilitating a child's active engagement, through play, with people and objects in the world to encourage knowledge construction and the development of mental structures that are built upon the child's prior knowledge and experiences (Castle, 2012; Piaget, 1973).

Yin (2003) identified four principles to ensure high quality data analysis in social science research: Show that the researcher attended to all of the evidence, show the researcher addressed all major rival interpretations, show the researcher addressed the

most significant aspect of the case study, and the research used the researcher's own prior, expert knowledge in the case study.

Identified as a factor relating to this study is the pressure on schools, teachers, and on young children, imposed by educational standards, to write and read on grade level by the end of third grade as determined by state mandated reading tests. To achieve this goal, educators begin laying a foundation for literacy early in the formal education process. As emergent literacy begins to develop, early childhood constructivist theory is applied to classroom practices that will support and enhance early development and maintain the integrity of sound early developmentally appropriate childhood practices.

Clay (1991) proposed that young children learn to write before they begin to read. While this proposition is consistent with commonly shared tenets of developmentally appropriate practice, standards require young children to perform academically beyond their chronological years (NAEYC, 2009). The academic push contradicts both developmentally appropriate practices and best practices in constructivist early childhood pedagogy. While early childhood professionals are being held accountable to present instruction that upholds standards and prepares children for future academic expectations, standards are pushing teachers to provide academic instruction that disregards the fundamental tenets of developmentally appropriate practice (Copple & Bredekamp, 2006). Using developmentally appropriate practices to provide writing experiences, the notion that writing occurs before reading, and applying constructivist theory to classroom decision-making are the theoretical propositions that provide the foundation for this study. The data analysis considered these propositions to obtain an understanding of what happened when pre-kindergarten children engaged with writing in a teacher-created

dramatic play environment. This analysis applies Yin's (2003) reliance on theoretical propositions and a review and analysis of the observation, interview, and writing document data as they relate to or respond to emerging themes and to the research questions.

Participants

The volunteer teacher participant had nineteen students in her class. The randomly selected teacher was a veteran pre-kindergarten teacher with eighteen years of experience. She held a Bachelor's degree in Elementary Education, a certificate in Early Childhood Education, and a Master's of Education in Teaching and was Nationally Board Certified as an Early Childhood Generalist. The children in the class were four and five years old and enrolled in a public pre-kindergarten program. There were ten girls and nine boys. After superintendent consent and teacher consent were obtained, parent consent and child assent were obtained for each student, allowing access to observe, collect documents, and interview each child in the class.

The teacher was asked to allow the researcher to observe in her classroom and to include writing materials in the dramatic play center. The type and amount of writing materials were intentionally undefined to create a naturally occurring free-play setting unrestricted by researcher control or influence. The classroom teacher maintained control over the contents of the dramatic play center. The teacher was occasionally observed interacting with the children at dramatic play as she would do during any typical play session. From time-to-time, the teacher took dictation on the children's written work as the children told the stories of their writing or described their written work to her.

The Classroom Environment

The classroom environment was a blend between a “traditional” pre-kindergarten environment and a Reggio Emilia inspired learning environment. The environment from a Reggio-inspired perspective is, “the way the physical space is dressed up, lived in, defined, and redefined over time” (Wurm, 2005, p. 26). The Reggio influence in the dramatic play center in this case provided boundaries for the observations, encouraged children to participate at the center, and encouraged the construction of knowledge through sustained play within the environment. The dramatic play center in this class did not completely reflect either a traditional or an authentic Reggio environment but did reflect nuances of the Reggio inspiration that were found in the use of natural wooden furnishings, the defined space, the use of lighting, and the use of some real-life objects.

These Reggio-inspired influences were seen throughout the classroom. Three walls were painted a soft and neutral cream color and one wall was painted raindrop blue. The furnishings were an eclectic mixture of wood with some tables having a gray laminated surface. Other furnishings and shelves were painted black. The rugs retained a traditional primary color scheme with shapes and alphabet letters decorating them as they provide spaces for each child to sit and play on the floor. Approximately two thirds of the room was carpeted with worn, tattered green commercial carpeting. The rugs were used to cover this carpeting to camouflage the unappealing surface. Several lamps in the room allowed for a reduction in fluorescent lighting. The overhead fluorescent lighting is used minimally with approximately half of the lights in use during instructional times. There were no windows in the room; therefore, there was no natural lighting.

A fabric-draped structure in the center of the room housed and defined the dramatic play center (see Figure 4.1). The classroom included a writing center, a

classroom library, a space for whole group instruction, a science center, a math center, a block center, a computer center, and tables for both the teacher's small group instruction and the assistant's small group instruction. The classroom had one entry door, no windows, a small sink and cabinet area, and a space for the teacher's desk and workspace. The classroom was neatly organized and arranged to provide multiple opportunities for children to interact with the materials at each center/station. The room was inviting, uncluttered, and contributed to the organization of learning activities, play activities, transitions, and student and adult safety.

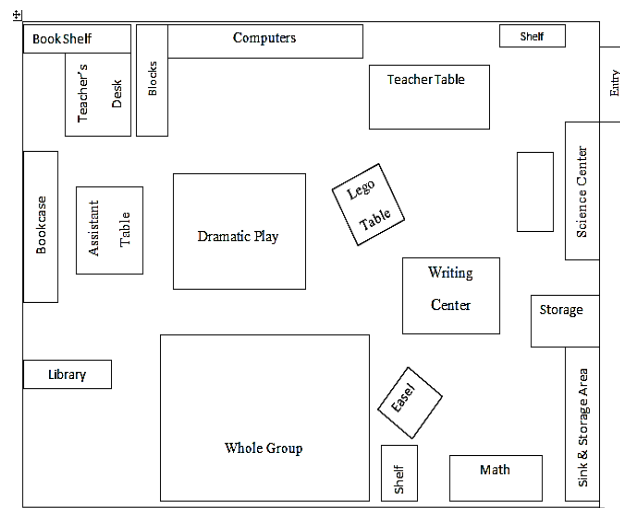


Figure 4.1 Pre-kindergarten Classroom Layout

The teacher gave attention to the classroom layout and to designing and creating spaces that welcome children as curious investigative active learners. As much as possible, the teacher chose natural wood materials and reduced the amount of plastic in the classroom in a Reggio Emilia-inspired approach, which promotes natural and real-life materials rather than plastic reproductions of real objects. The organization of the space was thoughtfully planned. The amount of stored materials in the classroom was limited to focus on decluttering the space to avoid sensory over-stimulation. As the children entered

this space, they were welcomed by an environment that invited them to the center.

The dramatic play center was defined by a plastic pipe frame. The pipes were cut and secured to frame the corners, walls, and roofline over the center. Sheer white cloths draped over the frame outlined the structure and emphasized the boundaries of this space. In the dramatic play center, soft lighting from the lamp provided a golden glow throughout the space. Furnishings included a wooden table and two wooden chairs, a wooden bench, a blue and white plastic high chair, a kitchen center unit that included a sink, stove, and storage space, an end table with a built-in lamp and magazine rack, a wooden doll bed, and a wooden refrigerator. The toys at the dramatic play center included a variety of plastic food, cooking pans, real dishes, placemats, plastic flatware, and glasses for the table and chairs; a purse made of wooden beads; a stuffed cow; a baby doll with a cloth body and a plastic head, arms, and legs; and writing materials (see Figure 4.2). The writing materials at the center included clipboards with plain white paper, a basket with ink pads and alphabet stamps, and a bucket of pencils, pens, and stamping markers.



Figure 4.2 Teacher-created Dramatic Play Center

Data Analysis Process

After three months of data collection from observations, interviews, and documents, the data were coded and winnowed to produce meaningful and useful units of data (Chenail, 1995). During this process, the data were dissected one sentence at a time and sorted as each line of field notes and each line of the researcher's reflective journal was considered according to the main idea, topic, or scenario contained in the note. The interview data was dissected in the same way. Through careful and recursive analysis of the data, several themes emerged related to dramatic play and several emerged related to writing. As this recursive process was occurring, continuous attention was paid to the general topics outlined by the theoretical propositions. This analytical process referred to developmentally appropriate practices, the notion of how children explore writing before they become readers, and the constructivist perspective that included both a focus on the pedagogy used by the teacher and the construction of knowledge by the children. These propositions were intentionally considered as each piece of data from each observation was reviewed. Adjustments were made to the data until the major themes of the study were illuminated by this process. Writing samples often fit into more than one theme. Duplicates of student writing samples were produced to allow for their inclusion into multiple themes.

In addition to taking the data apart, the data was holistically viewed as field note descriptions, student phrases, or scenarios were viewed as a unit of information that contributed to the understanding of the data as a whole as it related to specific play or writing occurrences. The data was reviewed from the multiple perspectives of the theoretical propositions and was considered as each line or phrase was placed into

emergent themes. Throughout the data analysis process, the emergent themes remained flexible. As each note or phrase was considered, the notes were sorted to determine their best fit into one or more of the emergent themes. To ensure the best fit, student work samples were duplicated and placed in multiple categories to ensure meanings could be obtained through various potential interpretations.

The Dramatic Play Center - Student Directed Play

To better understand what happened when pre-kindergarten children engaged with writing in a teacher-created dramatic play environment, it is important to understand that the children were unquestionably drawn to the center and chose the center when given the free choice of play centers in the classroom. As the children played at the center, they often selected their activity early in the play session and continued with their choice for the entire 30 minutes. When provided with opportunities for writing in the dramatic play environment, as the field notes and student writing documents show, the children consistently chose to participate in play and/or writing. The dramatic play center was one of the students' first choices and the center was more frequently filled than not filled, to the maximum population of four students. The consistent use of the center was demonstrated immediately and remained constant throughout the data collection.

The children's activity at the dramatic play center took two forms: imaginative house play or imaginative writing play. It was uncommon for the children to engage in both imaginative house play sessions and imaginative writing sessions during the same free-choice center time. One of the most interesting events that transpired during the play was that although there was nothing in the environment that would separate or cause the children to separate their play into writing play and house play, the children did so. They

did not engage with imaginative writing play during an imaginative house play session nor did the children engage with imaginative house play during imaginative writing play sessions. While it can be said that the writing and the play did not intersect during this study, it is important to understand that play was always occurring.

It also must be clarified that imaginative play was a constant regardless of whether the children were engaged in imaginative house play or imaginative writing play. The imaginative house play was characterized by a very different set of interactions and behaviors than the children exhibited during the imaginative writing play. Both types of imaginative play are discussed in more detail in relation to the study's emergent themes.

It is important to note that the play, including both imaginative writing play and imaginative house play, facilitated the interrelationship between writing and play in a developmentally appropriate learning environment. It is also essential to note that due to the characteristics of the learning environment, the learning opportunities offered to children, and the approach to facilitating the learning supported the construction of new knowledge using a constructivist approach (Vygotsky, 1978).

Variety of Students in the Environment

Although there was no question that the children chose the dramatic play center consistently, I began to question how often the children were choosing the center and whether all of the children in the class were participating or having an opportunity to participate in the center. As I reflected on this, I wrote:

It would be interesting to find out which students visit the center and engage in dramatic play during each observation to get a clear picture of how many of the

children in the class play at the center and if there is a balance between the number of boys and girls playing at the center. (observation eight)

I revisited my observation field notes and student work samples with the feeling that girls were frequently dominating the center in relationship to both play and writing. I began to wonder whether the students' choice to come to the center and other factors influencing their center selection, such as dismissal order and student population requirements, were having an influence on student usage and student access to the center. This information is important to the study because it helps show whether the children were interested in the dramatic play center and consequently whether they self-selected the center to engage in play activities.

In reviewing the field notes, I found that eighteen of the nineteen students participated at the center at least once during the data collection period. Most of those children chose the center on multiple occasions. Only two children chose dramatic play only once. One child did not choose to visit the center at all. Table 4.1 shows that the notion that girls dominated the center was incorrect; the data show a fairly consistent balance between boys and girls. The balance was present over the twelve-week period and demonstrated that children revisited the center on several occasions. This analysis illuminated the fact that the students' choice to come to the center may have been affected by the order in which the children were dismissed by the teacher to select a center and was often controlled by the center's population limitations; however, it also demonstrates that all but one child participated in writing and play in the dramatic play center at their own discretion. Table 4.1 shows the students' self-selected participation in the dramatic play center over the twelve-week period:

Table 4.1 Student Participation in the Dramatic Play Center

Students	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Isaac												
Chance												
Kalen												
Ryder												
Brian												
Kasey												
Hannah												
Caleb												
Zane												
Alex												
Zoey												
Brittney												
Allie												
Jessica												
Roma												
Tia												
Kaley												
Gabriel												
Harper												

In response to determining what happens to writing when children engage with writing in the dramatic play environment, this balance shows that almost all of the children chose to participate and there were no groups or individuals dominating the play. This finding improves the understanding of what happened at the dramatic play center by clarifying the influences on the writing play, the house play, and entry/access to the center. Understanding who participated will also give insights into which students had the opportunity to engage in play that would potentially influence and advance their individual construction of knowledge.

Self-regulation of the Participation

After analyzing the participation of the nineteen students in the class and finding no considerable imbalance in student selection or participation, I began to consider population as a powerful influence over the play and writing. When children came to play in the center, the children in the center counted to be sure they were under the established

limit, four students. In observation two, Kaley said, "Four can be in here. One, two, three, four." Observation five found the children monitoring and regulating the population. Hannah told Chance that the center could "only have four." Hannah said, "Chance you need to get out." "One, two, three, four, five." During observation ten, Hannah extended an invitation to Zoey when she arrived at the center well into the play session. Hannah said, "There's only three here." Zoey decided to paint at the easel instead of playing at the dramatic play center.

The children typically controlled and self-regulated the population without help from the teacher. Usually, the children would abide by the population requirements and leave the center once they counted and negotiated with the children who were already playing there. In observation five, Chance stayed in the center even though she was the fifth person. Hannah told her to "get out." In this instance, the children did not conform to the population requirements of the center, and play continued with five children playing there. Chance showed a strong desire to play at the dramatic play center when she insisted on staying there as the fifth person. Because she violated this rule, she showed that her developmental ability to understand and conform to play with rules may not have been at the same level as the children who were self-regulating the population at the center. She also showed that the population of four students could potentially be expanded to five

Population at the Dramatic Play Center

The population limit in the center affected how many and which children had an opportunity to participate in the center. There were times when the same children who initially selected the center played there for the entire play session, forcing any students

who came to the center to leave until one of the initial participants chose to leave. Because only four children were allowed in the center at one time, the number of children who participated was reduced. However, once the dramatic play center was initially filled at the onset of free-choice play time, the children were forced to choose to write and play in other centers. Clay (1991) suggests placing writing materials at classroom centers to encourage writing. Because the teacher had done this, children were given the opportunity to explore writing in a variety of other centers. These outlying writing activities were observed at the writing center (observation seven), the whole group carpet area (observations three, four, & seven), and at the table near the dramatic play center (observation two).

The population limitation influenced the frequency of play opportunities at the center and consequently the frequency of engagement with writing materials. The introduction of new writing materials also had an effect on the children in the class. When new stamps and ink pads were introduced during observation three, they created such interest in the center that the children waited in line for a turn rather than choosing to play at a different center, sacrificing their free play time waiting to play at dramatic play because of the new materials. Five children, four girls and one boy, formed a waiting line just outside of the dramatic play center, crossed their arms, and watched intently as the children in the center explored using the stamps. As free-choice center time passed, the teacher noticed the children in the line were not playing anywhere and set a time limit in the dramatic play center to allow the children who were waiting in line to have play time at the center during the remaining minutes of free play time. The teacher said the children would have to “switch after a while.”

This observation illuminates the influence of both population limits and materials over the play and writing in the center. Once the initial four students filled the dramatic play center, the other fifteen students could not enter until someone decided to exit the center. If none of the four decided to leave, play opportunities for the remainder of the class became unavailable. The center choices made by the first students to be dismissed from whole group time influenced the choices for the other children. In this case, I found that new writing materials piqued the children's interest and the center filled quickly. An example of the control of the materials over writing play and house play occurred the notes from observation four, when the teacher placed new dry erase crayons with the dry erase boards at the whole group carpet area: "Although the teacher didn't place any new materials in the dramatic play center today, the new writing materials in a different center drew the children away from the dramatic play center."

While the influence of the population was unexpected, the fact that it had some control over the behavior of the children and their access to the center makes it a noteworthy factor. The influence of the population limit and the materials respond to the question of what happens when the children are engaged in writing at the dramatic play center: (1) The children eagerly engaged with writing at the dramatic play center; (2) Their ability to have access to the center was influenced by dismissal order; (3) Their interest in the center was enhanced with the introduction of new writing materials; and (4) The materials exerted some influence over both the play and the writing.

Developmentally Appropriate Practices Connected to Play and Writing

The theoretical proposition concerning developmentally appropriate practices can best be analyzed by considering the practices as a whole. This perspective not only

includes the developmentally appropriate practices related to the play (and writing) at the dramatic play center (imaginative house play and imaginative writing play) but also includes the teacher's role in creating the environment, the teacher's role in planning play activities, and the teacher's role in facilitating the construction of knowledge in the center. The theoretical proposition tying developmentally appropriate practices to this study was best understood as an integrated component of the practices and design of the teaching and learning opportunities inherent within the classroom.

From a constructivist perspective, developmentally appropriate practices are "practices which promote young children's optimal learning and development" (NAEYC, 2009, p. 1). The classroom teacher designs and plans the center to "internally motivate" and engage the children in "authentic and meaningful" tasks (Branscombe, et al., 2003, p. 33). Understanding the basic constructivist assumptions informs the pedagogy related to intellectual, social, physical, emotional, and linguistic development. The teacher plays the primary role in determining the activities that may encourage development in these domains. The center design encourages the construction of knowledge and advances the child's development. The teacher's role is to facilitate the advanced understandings with the objective being "the understanding one constructs as a result of experience" (Brown, et al., 2007). The classroom teacher's role is to provide the time, space, and materials to allow the children to engage in experiences that advance their understandings. An important feature in planning environments that advance understandings is providing experiences at the child's appropriate developmental level. Vygotsky (1978) referred to the space between a child's ability to engage independently and a child's need for support as the zone of proximal development. In a constructivist and developmentally appropriate

classroom the teacher plans the activities, based on her observations and assessment of the children's needs, to facilitate meaningful experiences that advance understandings in relationship to the children's zone of proximal development.

What happened in the dramatic play environment that evidenced developmentally appropriate practices based on the shared criteria for developmentally appropriate practices and constructivist theory? The identifiable factors that represented developmentally appropriate practices in this study began with the teacher's classroom planning, classroom design, and materials selections. The classroom was planned to include centers that were purposefully created for free-choice play. The spaces were identified, materials at each center were provided, and time was provided in the daily routine for the children to engage in these activities. The teacher understood her role as a facilitator and did not direct the free-choice play activities, but interacted with the children as they played.

The child's role in the developmentally appropriate play is that of the constructor of new knowledge. Once the teacher provided the space, materials, and time, the children self-directed the play. The developmentally appropriate dramatic play center placed the children in the roles of decision-makers, problem-solvers, and constructors. Their activities and experiences resulted in a steady flow of imaginative play. The children's tendency to separate the play into imaginative house play and imaginative writing play was their method of satisfying their internal needs and constructing understandings. In the vein of constructivist pedagogy and developmentally appropriate practice, the student's choice of what and how to play was not controlled or directed by the teacher.

In regard to providing experiences that advance understandings and facilitate the construction of knowledge, the observations showed that the teacher attended to the notion that play is valuable in the developmental process. She demonstrated the value of play through the classroom design and planning. The teacher made decisions that were in line with the tenets of developmentally appropriate practices and rejected the trend to use instructional time to focus on skill-oriented activities. The teacher valued active learning and did not give in to today's inclination to reduce or eliminate play activities in lieu of paper and pencil tasks.

The materials and furnishing in the center were the tools provided by the teacher to facilitate the children's play, thinking, and construction of knowledge. Although the play materials did not change during the study, the writing materials were changed. The emergent themes relating specifically to writing highlight the role the materials played in inspiring imaginative writing play and in facilitating imaginative house play.

Emergent Themes Connected to Imaginative Writing Play

The data evidenced the children's strong and consistent choice to take advantage of ongoing imaginative play opportunities at the dramatic play center. Understanding what happened when pre-kindergarten children produce writing while they engaged in dramatic play can best be explained in the context of describing the data related to imaginative writing play. The emerging themes in writing are: The act of writing is individual, not social, the writing was inspired by materials, the writing was inspired by stamps, and the writing was inspired by pens and pencils.

The Act of Writing is Individual, not Social

Vygotsky (1978) identified gestures, talk, play, and writing as the modes of

representation that lead to emergent writing and discussed the stages of oral language that begin with speech babbling and progress to soundless speech. At the dramatic play center, it appeared that the children were not interacting socially while they were engaged in imaginative writing play. As the social interactions diminished, the internal processing became unobservable as the children relied on their ability to represent their inner speech on paper or dry erase boards. The intangible individual soundless speech made researcher understanding during observation challenging; however, the writing products and student interviews clearly explained the child's thinking and the intentions of their representations.

There were no instances when the children showed behavioral signs of imaginative house play while they using the writing materials. Observation one field notes state, "Chance and Kaley worked independently drawing pictures and did not talk to anybody." There was a distinctly noticeable behavior change when the children self-selected the writing materials as compared to when they were engaged with the materials that elicited imaginative house play. The researcher's journal describes the children's behavior during writing play:

As usual, there are long periods in which the children did not make verbal exchanges. The children make very few vocalizations when they are engaged in writing. It appears that the focus of the play sessions becomes the process of writing when the children choose to write rather than engage in role play or pretend play. It is interesting to note that the children's social interactions and verbal exchanges are often sporadic and sparse during writing exploration.

(observation nine)

When the children played with writing, they became more independent and did not interact as much with the other children. In observation three, the field notes state, “The kids didn’t talk, as they were so busy stamping, writing, and sharing the materials.” Their thoughts, as they were represented on paper, were not obvious to the observer until they were explained and described in the student interview. The children interacted less with one another and they did not reveal insights into their writing freely when they were creating their written works.

These examples give life to Vygotsky’s (1978) notions relating to how the children used representations and speech as they engaged in imaginative play at the dramatic play center. It is reasonable when considering Vygotsky’s (1978) developmental theories on speech to understand that the unarticulated thinking during writing was evident when the children were turning to a more advanced level of mental ability and relying on soundless speech as a representation. The imaginative writing play required inner speech. It is sensible to consider the challenge required for any individual, young or old, to both talk and writing simultaneously. It is logical to presume that the act of writing facilitated the inner speech needed to imagine and construct writing during play.

Although Vygotsky’s (1962/1986) theories rely on the power of social interactions in development, social interactions were not as vibrant during imaginative writing play. Because of the level of mental processing required when children write, the act of writing was individual, not social. This illuminates the theoretical proposition of the study and the work of both Clay (1991) and Vygotsky (1962/1986). First, Clay’s (1991) notion that young children experiment with and produce writing before they learn to read was demonstrated by the numerous writing samples produced by pre-kindergarten

children who have not developed the ability to read conventional text. Second, the imaginative writing play evidenced the children's ability to engage in Vygotsky's (1978) most advanced stage of representational speech, soundless speech. The children produced writing samples during individual, not social, activities that evidence their understanding of the relationship between mental thought and words.

Vygotsky (1978) recognized that the stages of speech development occur during and extend beyond the early childhood years. These stages are important to understanding why imaginative house play and imaginative writing play produced significantly different levels and types of spoken and unspoken social interactions. Vygotsky (1978) identified children's speech stages developed during the early childhood years as primitive, oral, and inner speech. These varied levels of speech were represented in the social interactions during imaginative play and as the children separated the imaginative play into imaginative house play and imaginative writing play.

When the children engaged in imaginative house play, their social interactions were vibrant and their imaginative role play scenarios and intentions were obvious. Hillary and Allie demonstrated this type of play: "Hillary said, 'Why are you making noise like that?' Alexis was hissing, pretending like a cat fight with her fingers up." This imaginative play with vibrant verbal and non-verbal interactions is very different from the soundless imaginative writing play (observation twelve).

It is clear that the children selected and interacted socially at the dramatic play center. The observations demonstrated that not only were the play opportunities developmentally appropriate but the materials and methods are also constructivist. The National Association for the Education of Young Children's (NAEYC) position

statement on Developmentally Appropriate Practice focuses on physical, intellectual, social, and emotional development (2009). Strickland and Schickedanz (2009) identify the same developmental domains but also include language as a domain (p. 5). In terms of social, intellectual, and linguistic development, the imaginative play stimulated the children's individual zones of proximal development, allowing them to engage in developmentally appropriate play that allowed for spontaneous social interactions (Vygotsky, 1978). These interactions resulted in varying representations of both external and inner speech during imaginative play and varying representations of inner speech represented in written forms during imaginative writing play. Because young children (and the teachers of young children) are experiencing pressures to achieve more at earlier ages, this study deliberately explored the possibility that writing in the play environment would provide developmentally appropriate learning opportunities for pre-kindergarten children to develop writing skills that will assist them as they face the pressures imposed by current and ever-changing standards (National Governor's Council, 2010, Snow, 2011). The results demonstrated by the individual imaginative writing observations and writing samples placed the children at Vygotsky's (1978) highest developmental level of both representation and speech and support the idea that, in this case, writing in free-choice play advanced the developmental levels of children in pre-kindergarten before formal reading ability was present.

While the act of writing was individual, the social interactions in imaginative house play were vibrant and interactive. The children engaged assertively with one another and with the materials. The physical manipulation of the play food, the physical use of the writing materials, and the physical movements during pretend play facilitated

not only social interactions but also physical development of both gross and fine motor skills.

At several times during the observation, the play food was put in different places but it was not really used to initiate or maintain the play. It was dumped on the floor. It was put on the table. It was dumped into the sink of the housekeeping set. Each time, it was picked up and put back into the white plastic basket and moved to a new location. It is interesting that the children spent very little time pretending with the play food and a great deal of time picking it up and moving it around. (observation five)

In observation twelve the researcher notes, "The children continually manipulate the food items." Verbal and non-verbal interactions provided children with opportunities to practice expressive and receptive language and develop socially. Regardless of the type of play that was selected, the children were clearly emotionally invested as they enthusiastically selected the center, filled the center, and maintained either the writing play or the house play while they were at the center.

Vygotsky's (1962/1986) constructivist perspective contributes to understanding young children's thought and language as it is developed through experiences in social settings such dramatic play (p. xiv). Vygotsky's work sets the process of speech and language development into a social context: "From the very beginning a child is brought up in a 'verbal environment'" (Vygotsky, 1962/1986, p. 101). Vygotsky believed that social interaction was the "motivating force" for the transition from the "level of thinking in complexes and pseudoconcepts to thinking in concepts" (Wertsch, 1985, p. 107). The vibrant social interactions found in

imaginative house play evidenced the gestures, talk, and play representations identified by Vygotsky (1978). Although it looked very different, the imaginative writing play evidenced Vygotsky's (1978) final mode of representation, writing, and underscores the role of the social environment and development in the children's production of writing at the dramatic play center.

“Thought development is determined by language, by the linguistic tools of thought and by the sociocultural experience of the child” (Vygotsky, 1962, p. 51). The social interactions represented familiar family structures, familiar objects, and concepts that were closely related to the children themselves. As young children became increasingly aware of their world both cognitively and linguistically, it becomes evident that the connections between thought and word evolve, representing Vygotsky's (1962/1986) belief that the word is the end result as the child connects an action to the word (p. 255). In this case, the children were able to connect mental and oral thoughts to text, and in some instances, were therefore able to produce words to represent these ideas.

Writing Inspired by Materials

Although the materials had a direct influence on children's writing at the center, the choice of writing materials was not influenced by the design of the study. The purpose for allowing the teacher participant to choose the materials just as she would also choose the play materials was to give the study center authenticity, as it was unguided by the researcher or by the study's design. The writing materials in the center varied over the observation period and were provided at the discretion of the teacher.

Gerde, et al.'s (2012) research found that writing materials and writing activities were predominantly found at classroom writing centers. As the children in this class interacted with writing at the dramatic play center, there was an undisputable interest in the writing, demonstrated by the use of the materials and supplies. The interest was also demonstrated by the children's desire to choose writing first as long as materials were available.

In the beginning, the writing materials included blank white paper on three clipboards, one dry erase board, and a plastic cup with a variety of pencils, pens, colored pencils, markers, and dry erase markers. Over time, the writing utensils were transferred from the cup to a small metal bucket with a handle. For observation three, stamping markers were added to the pens and pencils bucket. In this same observation, the teacher also added Thanksgiving themed stamps, ink pads, and small card stock note paper and envelopes. The Thanksgiving stamps were available for only one observation but the stamping markers continued to be available in the pens and pencils bucket for the children throughout the remaining observations. In observation nine, the teacher added a box of new small wooden alphabet stamps. The writing utensils were placed on the top of the table, while the clipboards were placed in the magazine rack below. All of the writing materials were organized on the small lamp table for all twelve observations and were not placed on or with the housekeeping materials.

As the materials were introduced to the center, the newness of fresh writing materials piqued the interest and engagement of the children in writing exploration and experimentation. On the first observation, the children were so engrossed in the new writing materials they worked independently on their written work and interacted

minimally during the observation. This high level of interest was found each time new and different writing materials were introduced.

When the themed stamps were introduced in observation three, the children lined up and waited for a turn to use them. Conversely, when the supply of materials was not available, the children would quickly lose interest in making any attempt to use them, as was evident in observation six. Chance wanted to make a Christmas card for her mother but after she made the card, she found no envelopes. She stood looking at the writing materials and waited until the teacher informed her there were “no more” and then she put the card down and walked away. Because Chance could not create an envelope for her Christmas card, she lost interest in the project. Without the envelope she was not able to complete her project as she intended. This incident shows the impact that materials have on writing products created by the children during writing play. The same impact was found when the clipboards needed a fresh supply of paper; the children would look at the clipboards for paper and if they couldn't find paper they would often just step away and chose something different to do.

Once the teacher noticed that the children needed more paper and supplies, she would replenish the paper and the children would begin to write again. On one occasion, Kasey could not find paper in the writing materials so she used the red ink pen and wrote on the center's play cellular phone (observation nine). To prevent the loss of interest in the center or to prevent writing inappropriately on toys or other materials, the teacher monitored the writing materials and kept the center supplied although there were a few times when the children asked for more supplies. The teacher stocked materials and organized them routinely.

The writing was inspired by stamps.

The written work samples provide evidence that the materials inspired imaginative writing play, as is distinctly seen when the children demonstrated a strong and consistent interest in using the stamps from observation two to observation twelve. From observation one forward, there was an undeniable desire to play with the stamps, especially when new stamps were first introduced.

Clay's (1991) notion that young children explore writing before they become readers was illustrated by the use of the stamping markers, stamps, and ink pads. The children were very motivated to explore writing through stamping. The stamps represented not just the children's enthusiasm for writing exploration but also a creative, open-ended opportunity to engage actively in meaningful play. The stamping play, as with all other writing products, required an individual level of internal processing (Vygotsky, 1978). While the children waited for turns to explore the stamps during observation three, they explored in the absence of social interactions and turned to inner speech and a more advanced level of representation and thought as they created written work using stamps, stamping markers, and ink pads.

Stamping markers, thematic stamps, quarter sheets of card stock, and a blue stamp pad were introduced to the center in observation three. The thematic stamps included a turkey, a pumpkin, and a barn. These holiday themed materials were available only on the third observation. The paper on clipboards, pencils, and pens from the first observation continued to be available throughout the data collection. During observation nine, a set of small wooden alphabet stamps (see Figure 4.4) were made available at the

center. Some types of stamps were available at every observation except observations one and two.



Figure 4.3 Writing Materials Including the Small Wooden Alphabet Stamps

Just as when writing materials were first introduced to the center, the newness of the stamping supplies sparked the interest of the children. During observation three, the stamping markers and the thematic stamps were so popular that the children lined up outside of the center to wait for a turn to use the new supplies. Although the stamps stimulated interest in the center, the writing samples produced during these first experiences with the stamping markers can best be described as random stamps covering the paper.

Figure 4.4 and 4.5 illustrate that although the stamping markers and stamps did not produce conventional writing, the stamping materials did increase the interest in the imaginative writing play and provide a pleasurable experience for the children. The writing stamps were used in conjunction with pens and pencils to create drawings representing home, family, and personal experiences and pop culture drawings about the movie *Frozen*.



Figure 4.4 Using Stamps and Pens and pencils to Draw and Write About *Frozen*
(Notes written by adult)

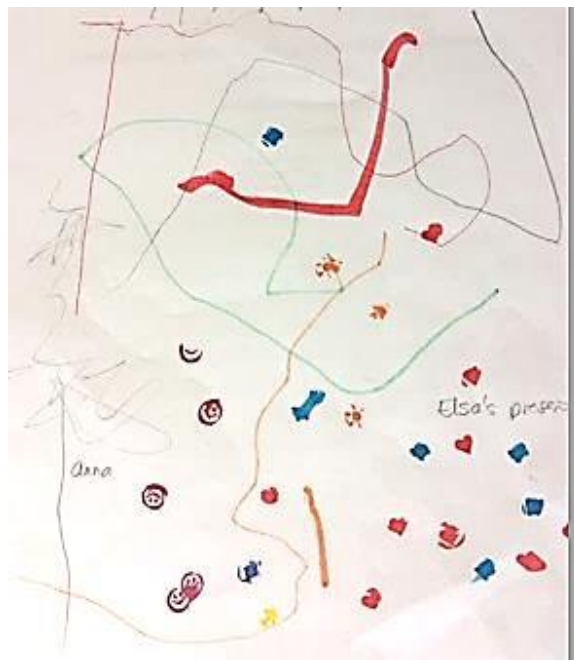


Figure 4.5 Using Stamps and Pens and pencils to Draw and Write about *Frozen*
(Notes written by adult)

The stamping displayed significant interest and creativity. The children were fascinated with the prints the stamps left behind as they placed the stamps on the ink pad and then pressed them down onto the paper and actively and eagerly participated with the stamps and ink pads. As the children enjoyed the stamping experience, the emphasis was on the magically appearing marks produced by the stamps. There was little consideration as to where the prints would be placed, which stamps were selected, or the designs created by the stamping process, as is found in Chance's drawings related to *Frozen*. Many samples showing the random stamping were collected (see Figures 4.6 and 4.7). The stamps were often scattered across the page and were upside down and backwards. The children integrated shapes, letters, and punctuation marks randomly. When their stamping was complete, they would use pens, pencils, or markers to legibly write their name on their stamped work.

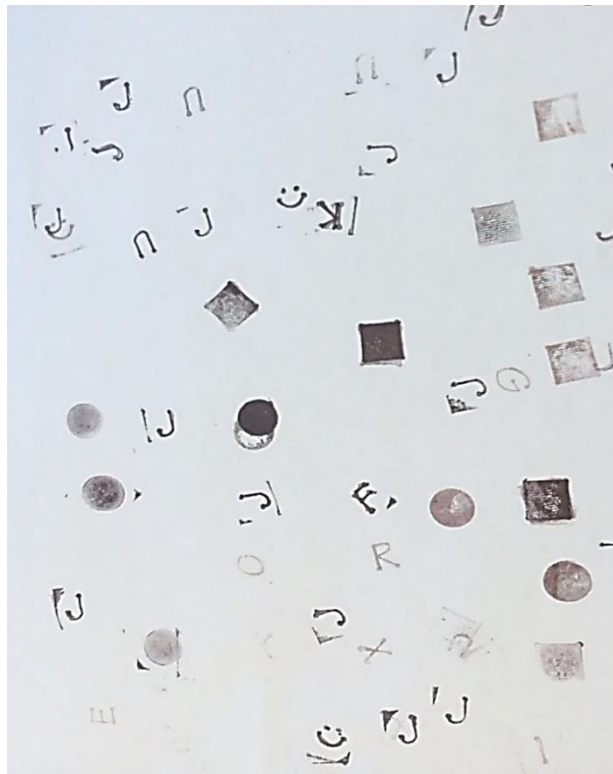


Figure 4.6 Stamping Randomly with Alphabet Stamps



Figure 4.7 Stamping Randomly with Theme Stamps

Once the stamped papers were finished, the children almost always wrote their name on their creations. At times, they selected stamping markers to write their name. Figure 4.8 shows the letter “R” that Ryder wrote with a stamping marker. The letters of his name turned out to resemble several separate lines that were made with one stroke of the marker.

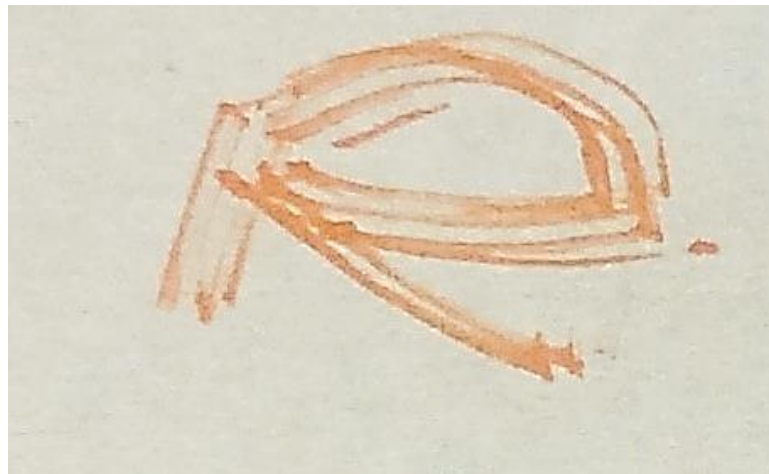


Figure 4.8 Writing Names Using a Stamping Marker

After observation three, the thematic stamps and ink pads were removed but the children continued using the stamping markers frequently. As the children grew more familiar

with the stamping markers, they would get paper and stamps, stamp a few times, and move on to something different.

During observation eleven, Kasey created a stamped paper using both the stamping markers and the alphabet stamps. By this time the stamping markers were running out of ink and were not creating the shapes they were designed to print. Using the stamps and ink pads, Kasey stamped five black upper case “B’s” and three upper case “L’s.” Using the stamping markers, she stamped a small black circle, a small black square, a small black star, four recognizable yellow stars and red and blue unrecognizable shapes. Her name was written at the top of the page using a red ink pen. When I asked Kasey about her writing, she looked puzzled. She said, “Its stamps.” When I asked if there was a story for her picture, she said, “Huh uh” (see Figure 4.9).

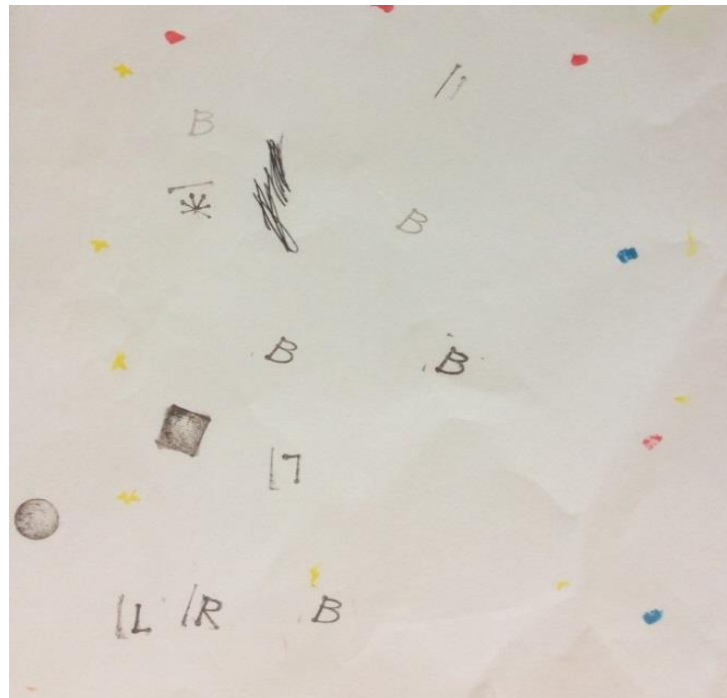


Figure 4.9 Kasey’s Random Stamping with No Intended Story

When I interviewed the children about stamped pictures, their descriptions indicate the simplicity of the stamps and the absence of an intended message or story. The children would either name the shape printed by the stamp or they would call the mark “a stamp.” When using the stamps, the child’s focus was not on specific shapes or designs, but was tied to the ability to press down and reveal a stamp on the page. The children were playing with the stamping materials.

Writing exploration was very much encouraged by the stamping activities. The children demonstrated their desire to play with the materials when they stood in line waiting to have their turn in the center. Stamping provided engaging imaginative writing play opportunities that helped to inspire and maintain imaginative play sessions at the dramatic play center.

The writing was occasionally composed completely of stamping. Other times it was a combination of stamping and writing with pens and pencils. The products created with stamps were significantly different than the products produced using pencils and pens. While the stamping was motivational, fun, and engaging to the children, the pens and pencils more often produced writing that imitated conventional print. Occasionally both stamps and pens and pencils were used in combination to produce very descriptive writing with stories and messages.

One very positive benefit of stamping was its contribution to fine motor skill development. The children typically used vertical up and down motions to stamp down onto the paper while holding the stamps with a pincer grasp. These motions are not used in conventional writing with pens and pencils but did provide an opportunity for the children to strengthen their finger and hand grasp while gaining a larger range of physical

strength from the gross motor movements required to move the stamp from paper to ink pad. At times the children used a tripod grasp with the stamping markers, but routinely they held the markers with their fist and used an up and down motion to produce the impressions on the paper. When choosing writing materials for children, physical development and future writing should be considered (Copple & Bredekamp, 2009). In this case, I found that stamping had an encouraging effect on student engagement with writing exploration. The stamps were very popular and were used often during writing play to produce holiday greeting cards and messages to parents. The stamps were also used to embellish the drawings that were included in the samples written with pens and pencils. The writing samples produced with pens and pencils were typically the most descriptive.

The writing was inspired by pens and pencils.

As I observed the children and their writing products, I found that name writing, functional spelling, and imitations of conventional print were done primarily using pens and pencils. Kasey's interview during observation eleven, sums up what was observed as the children worked with the stamps. Her facial expressions and body language in context relayed the non-verbal message that the question was silly. The simple response "It's stamps" indicated unmistakably that there was nothing more to it. There was no story to describe her work.

The stamps in this study promoted random play activity (see Figure 4.10). Some would say that the printing was not random but promoted creativity and self-expression. I agree that the stamps encouraged free play and creativity. I would argue that compared to

the writing created with pens and pencils, the stamps made a secondary contribution to the children's meaningful message writing.



Figure 4.10 Using Stamping Markers

The writing was inspired by dry erase boards.

The dry erase boards were available during the first two observations. After they were removed from the center, the children did not hesitate to get a dry erase board from the whole group area when they wanted to use one. The notes from observation four indicate that the children were drawn to the new materials at the whole group carpet area: “Although the teacher didn’t place any new items in the dramatic play center today, the new writing materials in a different center drew the children away from the dramatic play center.” Emphasizing the children’s interest in new writing materials, the observation notes from observation eight state, “I am seeing the children across the room writing at the writing center and on the dry erase boards on the whole group carpet.” During the first two observations, the children used the dry erase boards at dramatic play and both the boards and dry erase markers were available at the center. From observations three to twelve, the boards were not available at dramatic play but were very nearby at the whole

group area. It was common to see the children leave the dramatic play center and use the dry erase markers at the neighboring center.

Writing in the Dramatic Play Center

In response to the research question, what happens within the dramatic play environment? As I observed the children engage in imaginative writing play, I collected many work samples specifically highlighting the children's writing and the developmental process involved in this writing. These samples include: Writing connected to self, varied developmental levels in name writing, and visible development that occurred during data collection.

When considering developmentally appropriate practices and the dramatic play and writing experiences that were observed, the cognitive stages and constructivist theory are important to the analysis. Free choice experimental play, active play, manipulation of objects, play based on prior experiences, and play that closely connected to the egocentric pre-operational child are all considered to be developmentally appropriate according to the tenets of constructivist theory and to the stages of cognitive development (Piaget, 1970).

Writing Connected to Self

Vygotsky's (1978) sociocultural theory leads the discussion in regard to the intensity with which the children consistently produced writing that was closely connected to self. From his work we understand that children learn language from birth primarily through social interactions. For infants, toddlers, and young children, these interactions are primarily focused on the child and their closest family members. Not only do children learn speech and language skills from these important members of their

family, they also learn social skills and cultural norms from those who are engaging with them in their world. As children interact with objects and people in the world, they are constructing knowledge. Because the children focus on the world immediately surrounding them and because of the close personal ties they have with those that love and care for them, they gain a substantial amount of their constructed knowledge from these people, including exposure to environmental print that includes the names of the child and his/her family members. Vygotsky's (1978) belief in the dynamics between culture and child were strongly represented in the writing samples which resulted in name writing.

In terms of the constructivist perspective, Piaget's theory (1962) connects the egocentric preoperational child to the world that is closely connected to her or him personally. It is typical for four- and five-year-old children in the pre-operational stage of development to be focused on things closely connected to themselves (Piaget, 1962). The impressive number of name writing samples demonstrates this stage of development and shows that the children are most interested in exploring familiar and personally relevant text. The recognition of and respect for the children's natural progression through the developmental stages as identified by Piaget (1962) evidenced the application of constructivist theory to classroom practices and demonstrated the teacher's use of developmentally appropriate practices during this study. Additionally, the prominence of name writing samples demonstrates Clay's (1991) theory that young children write before they begin to read. This notion was vividly demonstrated by the abundance of name-writing samples and the children's ability to legibly write their name and the names of family members.

In relationship to the theoretical propositions identified for this case, the environment at the dramatic play center provided not only a developmentally appropriate avenue for both playing and writing but also facilitated opportunities for the construction of knowledge. As the children self-selected the play center and engaged there to produce writing samples, by far the most prominent type of writing produced during the twelve-week observation period was name writing. The children who participated in writing play produced name writing samples during every observation except observation five. Only one child did not produce writing at the dramatic play center during the study.

As the children created drawings or other written work, they usually wrote their name on the paper as well. In many cases, the children wrote their name on their work before they allowed me to take possession of it. Including a name on the paper is a habit that is reinforced by the teacher. I observed the teacher asking the children to put their names on written work during free choice activities and during small group instruction. During observation three, Brittney said, "I need to put my name on it!" She said, "First we have to draw our name. I'm going to draw my name in red." During the same observation, Kaley and Kasey also wrote their names on their work. On many occasions, the children wrote their own name on the paper that was placed on the clipboards or they wrote on the dry erase boards.

In observation two the children became very interested in writing their names late in the free-play session. The switch from imaginative house play to name writing occurred because the children noticed a group of children writing their names on dry erase boards at the whole group carpet area. Because time for free play was running short, the teacher asked Kalen to finish his work before the bell rang. Once the children

realized time was running out and the teacher had asked Kalen to finish writing before the bell rang, the children left the dramatic play center, got boards from the whole group carpet area, and moved to the table next to the dramatic play center to produce samples of their own names and names of their family members.

The notes from observation two say, “The children at the dramatic play center wanted to show me what they could write, so they came to the table with dry erase boards and started writing.” Some children wrote their own first and last name. Others wrote their first, middle, and last names. Some children wrote their full name and wrote their parents’ first names. One child wrote her first, middle, and last name, her parent’s first names, and the first four letters of her sister’s name. After I moved to the nearby table to observe what the children were doing there, the children began to show me their dry erase boards with their names written on them. Once I began to photograph these writing samples, the children became eager to make sure I saw their work and photographed it.

Many of these names were clearly and accurately written. Because of their accuracy and clear legibility, these samples could not be included and/or viewed by anyone other than the researcher to protect the identity of the children participating in the study. However, the name-writing samples showed the children’s ability to produce legible name-writing samples easily and eagerly. They not only demonstrated the children’s ability to practice writing at the dramatic play center but also practice writing that contributes to their writing ability. The name-writing samples highlighted the value of writing in the play environment and the contribution that was made towards the conventional writing skills required by today’s increasingly difficult educational standards.

Again, these writing samples showed the children's interest in and focus on producing names as a means of exploring writing as they played. These samples also showed that the children connected their writing to family and personal experiences. This demonstrated both Clay's (1991) theory of early writing exploration and the importance of allowing children the opportunity to engage in writing play that allows for the development of writing knowledge in a developmentally appropriate way. These samples also illuminated the nature of a child who had the ability to represent his thoughts in writing, which is the most advanced mode of representation according to Vygotsky (1978). Additionally, the name-writing samples represent the characteristics of a pre-operational child who is focused on self and what is personally connected to self (Piaget, 1962).

Other examples of name writing as the most prominent type of writing are found in observation twelve. Roma wrote her brother's and sister's names on her work and said, "That's my sister." In another sample from, observation nine, Roma wrote her brother's name and said in the interview, "This is my brother's name so straight." As Brian described his picture (see Figure 4.11) to his teacher he said, "My mom's name" and included both his and his mother's name (observation nine). In this case the letters were mostly unidentifiable but his description of the work clarified his writing intentions. Because Brian had the ability to describe his work written with the pen but did not mention the stamped symbol on the page as significant to the writing, it is possible that the stamped symbol did not carry an intended message or have a specific meaning associated with it or that he was not able to or did not desire to articulate the meaning during his conference with the teacher.

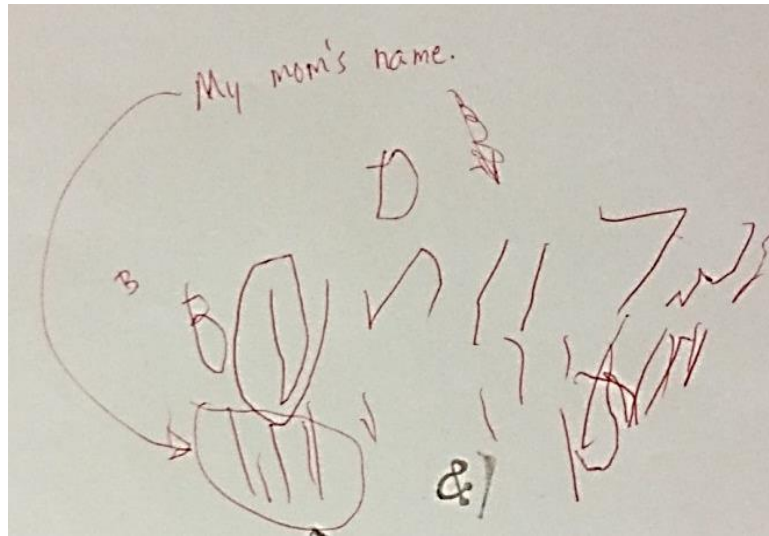


Figure 4.11 Brian's Name with his Mother's Name below It (Note written by adult)

Although the children's names and their family's names were very frequently clearly and legibly written, it is obvious that some of the children improved their ability to form the letters of their name during the data collection period. Jessica's first name writing attempt clearly displayed her knowledge of the upper case first letter followed by a string of lower case letters, but also showed reversals and name writing that moves from both the left to right and from the right to the left (observation one). Her second name writing attempt showed a right-to-left letter formation and a straight string of letters that included her first letter as upper case and the other letters out of order with some letters being repeated (observation three). Jessica's understanding that print moves in one direction was evidenced in this name writing attempt (see Figure 4.12).

Clay's (1991) stages of writing can be used to understand early writing such as Jessica's. Her writing was considered to be in the stage described as including some letter forms often found in names (Clay, 1991, p. 101), Vygotsky's (1978) modes of representation identify Jessica's representation as writing and as the most mature form of representation.

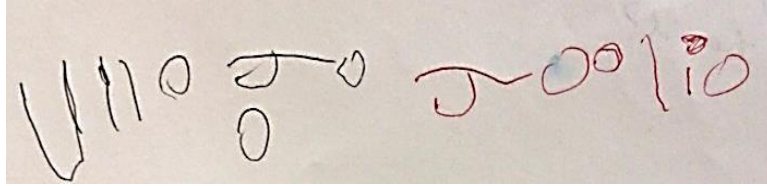


Figure 4.12 Jessica's Name Writing

Varied Developmental Levels in Name Writing

Chance, Roma, Brittney, Alex, Kaley, Kasey, Ryder, Hannah, Allie, and Isaac demonstrated a more sophisticated and accurate ability to produce their own names according to conventional rules of print and letter formation. The improvement in name writing ability demonstrated by these children indicated that development in motor control, alphabet recognition, and alphabet production occurred over the twelve weeks. This improved ability may be associated with the time spent in the pre-kindergarten program, as these abilities became more evident at mid-year. The improved name writing ability may also be associated with the young children's personal connections to themselves and their family members which contributed to their eagerness to practice name writing. Finally, the name writing improvement *may* be attributed to instructional activities during small group sessions with the classroom teacher; these sessions were not observed.

The data showed a wide variance in name writing ability among the children in the class and a wide variance in the understanding of the conventions of print relating to directionality and alphabet writing. Only two children did not produce name writing during the data collection period: Gabriel and Caleb. Gabriel did not choose the dramatic play center during the observation period and Caleb chose it only for observation two.

Visible Development During Data Collection

The intent of this study was not to interpret the writing samples in terms of writing development or writing growth. The samples were viewed in terms of meaningful writing products. However, growth was identified for several students and was most commonly seen in the child's ability to write his or her own name. Two children who, early in the study, were not able to write their own name identifiably demonstrated some progress over the twelve weeks: Brian and Jessica. Other examples of writing progress were found in functional spellings, which emerged late in the study when the children had completed the first semester of pre-kindergarten. By this time the children had experienced classroom instruction and plentiful opportunities to explore and engage with writing play at not only the dramatic play center but also other free choice play centers in the classroom.

Writing Connected to Personal Interests - Family

“Dear Mommy, I want to go play in the snow and I want to build a snowman.” Chance's drawings commonly painted a picture of her life experiences and often demonstrated her close relationship with her mommy (observation eight). During the same observation, Chance created writing that she described as “a message for my mom” (see Figure 4.13). Chance drew a large oval with red heart stamps, short green lines, red polka dots, a scalloped black ink pen line, and a curved orange line to create “a dress for my mom.” She continued including her mother as she described this drawing and dictated this note to her teacher, “Dear Mommy, I want to go play in the snow and make snow angels at our old house with Chance and Rhylan” (observation eight). Chance also included a daycare friend in her drawings from observation one. She said, “That is

somebody at my daycare and his name is Dylan. That's where we hide the candy; that's our treasure chest."

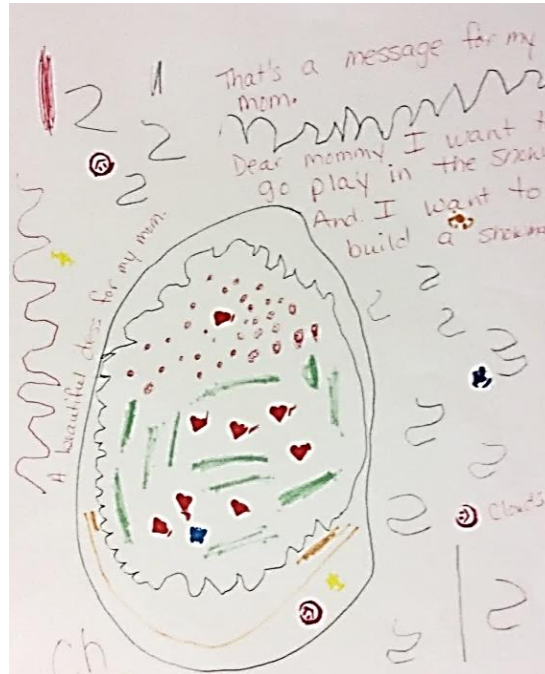


Figure 4.13 Chance's Drawing about Family (Notes written by teacher)

Kasey carried on with the theme of writing about those who were close to her as she drew a green rectangle, a blue rectangle, and a stick person and identified the work as, "My momma's store" (observation six). Roma's red ink pen drawing (see Figure 4.14) from observation nine showed only one person, four short strings of alphabet letters, and one string of numbers. Roma said the letters say, "Daddy's working at work." "It (one string of letters) says, Momma's being helpful." The short string of numbers say, "You be good." Roma produced samples showing her sister and her brother. She wrote both names. In a different drawing from observation nine, Roma wrote her name, a short row of short random lines, a letter "c" and a letter "m." She said, "These say, Dad's car is driving."

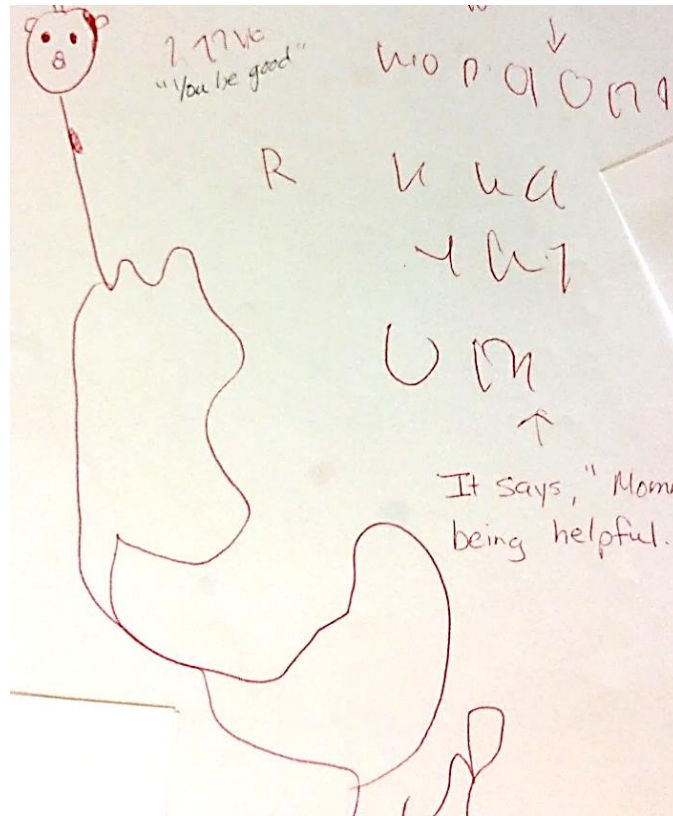


Figure 4.14 Roma’s Alphabet and Name Writing Using Red Ink (Notes written by teachers)

Kaley’s colorful drawing used both marker and ink pen to scribble individual patches of color. She used a stamping marker to write her name below the scribbles. The stamping marker created multiple lines as she pulled the marker across the paper rather than stamping it straight down to create an impression. Kaley said, “It is a big...it has um, my momma right there, all of my Bubba and me and Grammy and Papa” (see Figure 4.15). Kaley used the colorful scribbles to represent the members of her immediate and extended family in observation four.



Figure 4.15 Kaley’s Drawing of Her Extended Family

Brittney’s colorful geometric drawing started in the center with a circle (see Figure 4.16). The circle was outlined with an orange square, a blue square, a brown square and colorful yellow, blue, red, black, and green lines. Colorful stamps of hearts, smiley faces, butterflies, and fish are scribbled over with black and red ink pen.

Brittney’s spelling of *house* was immediately below the drawing, “Hos.” The letters show her ability to form the letters to represent the message of the drawing. Her intended message was clear and legible. She said, “That’s our house and a rainstorm” (observation nine).



Figure 4.16 Brittney's Drawing of Her Family's House in a Rainstorm (Notes written by teacher)

In observation nine, Brian said he wrote, "My mom's name" after he finished stamping black "X's" and ampersands. He used a red ink pen to write a string of marks above the stamps that begins with upper case "B" and includes many short straight lines in two rows. The bottom line was described as his mom's name.

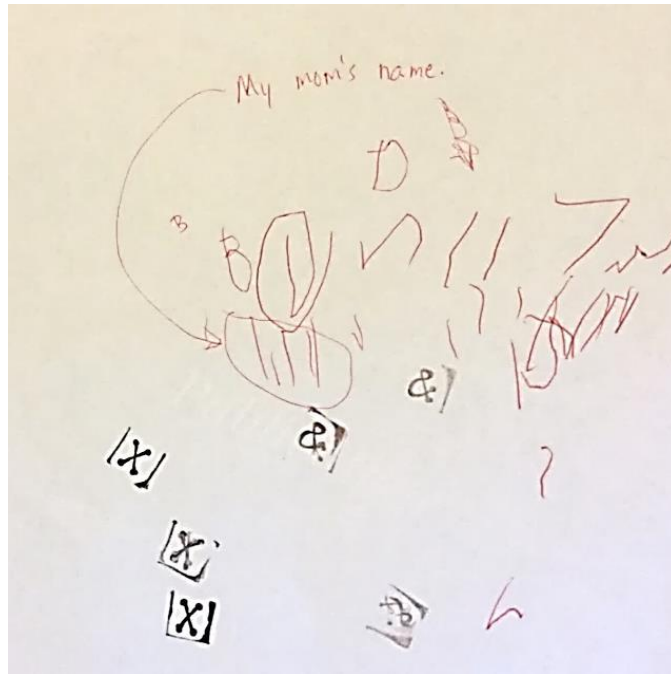


Figure 4.17 Brian’s Stamping and Conventional Name Writing with Pen (Note written by teacher)

Brian connected his writing to familiar things when he drew a long black ink pen oval and crossed vertically and horizontally over the shape (see Figure 4.18). He said, “I write fish” (observation two).

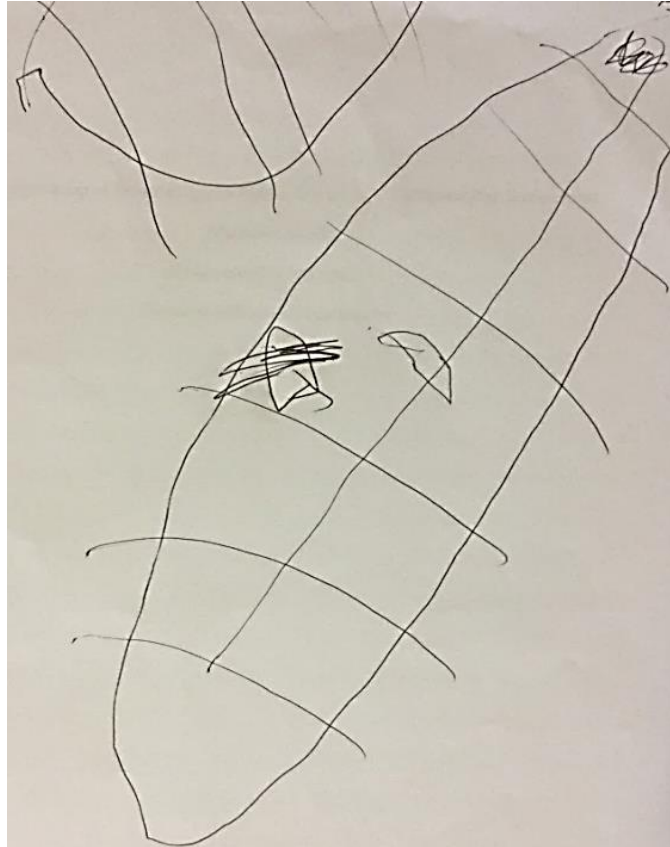


Figure 4.18 Brian's Drawing of a Fish

Other ways that the children associated their written work with family members and personal experiences were found in the Christmas cards produced by Kaley, Kasey, Jessica, Hannah, Harper, Ryder, Brayden and Chance. The envelopes and small pieces or card stock were quickly used up by the children as they created messages to their family members, most commonly, their mothers (see Figure 4.19). On one occasion, Chance asked the teacher for more envelopes because the box on the table was empty. After creating several cards in observation six, Chance said, "That one's for my mommy and that one is for my mommy, and that one is for my mommy."



Figure 4.19 The Envelopes Chance Created for her Mommy's Cards

There was an understandable connection between the writing the children produced at the dramatic play center and their personal experiences and family connections. As the children drew and wrote, the dictation from interviews clearly demonstrated that the most interesting and descriptive writing samples were related to the children's family members and home experiences. This was seen in Jessica's representation of cars (see Figure 4.20). Each of these examples demonstrates the socio-cultural influence the children's families play in their development and in their construction of knowledge. The writing also exemplified the children's stage of cognitive development, which links them to prior experiences that are closely related to themselves.



Figure 4.20 Jessica's Representations of Cars

Occasionally, the children included personal experiences and family members when they were using both pens and pencils and stamping markers. When the children were integrating both types of writing utensils, their identifiable and described work was created by the pens and/or pencils. The marks created by the stamps were described as either a stamp or as the name of the design stamped on the paper. The children's descriptions of their stamped pictures included no identified characters or people, in contrast to the pictures that were written about family and personal experiences.

Varied Developmental Levels in Conventional Writing

While the children consistently demonstrated similarities in their stage of development, their stages of writing/drawing varied greatly along with their ability to use oral language to describe their work. Chance, Kaley, Brittney, and Roma demonstrated

the strongest ability to describe orally the stories intended to go with their writing. Other samples found the children giving one word identifiers to their drawings and reducing the oral descriptions to naming. In observation two, for example, Brian drew a picture and said, "I write fish," and in observation five, Jessica drew a series of straight lines separated by three circular marks and said, "This is cars." Both the drawings and descriptions would be considered by Clay (1991) to be at the repetitive forms stage.

Imitating the alphabet and conventional print was seen beginning in the first observation, while functional spelling was not commonly seen and did not emerge until late in the data collections. As the children gained experience with environmental print, classroom instruction on alphabet letter identification and formation, and personal experiences connecting letters to names, things, and familiar places, they developed an increasing awareness of print in the world. The writing that represented conventional print, as found in the children's real world, was seen in the children's exploration with alphabet letter formation and print directionality.

As she described her writing in observation seven, Kasey said, "I write letters because I like doing it. It's a message. I'm trying to write my mom's name." Kasey's drawing included a flower on top of a scribble and a string of letters written to cross the width of the page in black ink and a red smiley face with big round eyes and a big round nose. The face had an obvious smile (see Figure 4.21). In observation one, Kasey wrote her name at the top of the paper using the red ink pen and wrote three upper case "As," an upper case "B", a lower case "e", and three or more lower case "I's" which she scribbled, over along with the lower case "e" using a pencil.

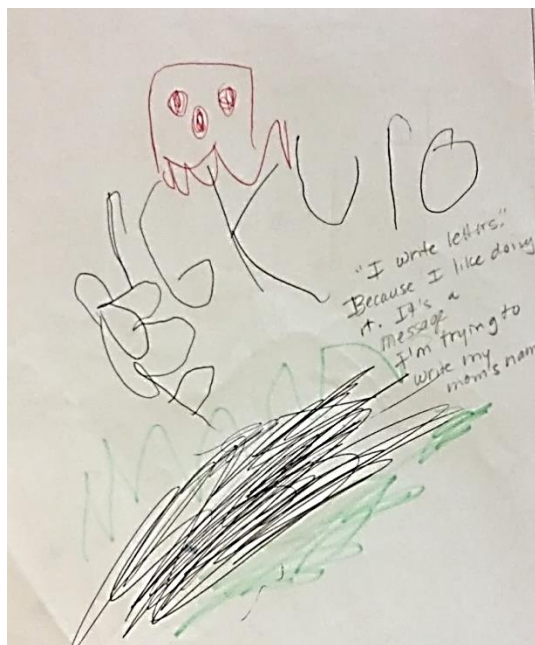


Figure 4.21 Kasey's Alphabet Exploration and Drawing with Pens and Pencils

(Notes written by teacher)

Tia explored letter writing (see Figure 4.22) on her page with a large scribble that circled letter-like forms written circularly in pencil from the bottom to the top of the page (observation one).

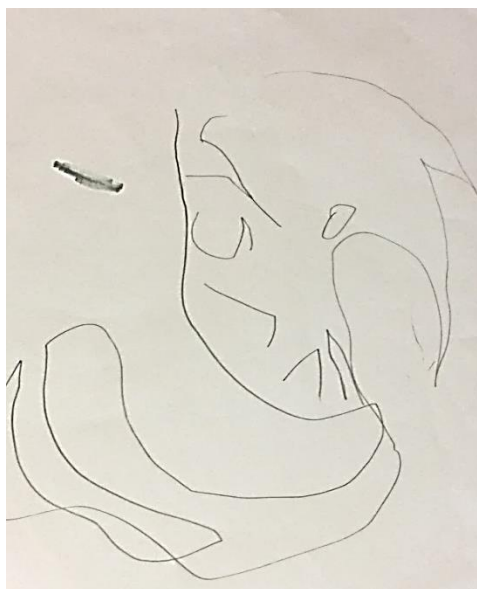


Figure 4. 22 Tia's Alphabet Letter Exploration

A separate sample from observation one showed that Tia’s letter-writing creation included a series of letters which were name writing (see Figure 4.23), a row of straight lines from the left to the right side of the page, a series of random marks under the row of lines, and what appears to be a series of either the letter “z” or the letter “s.”

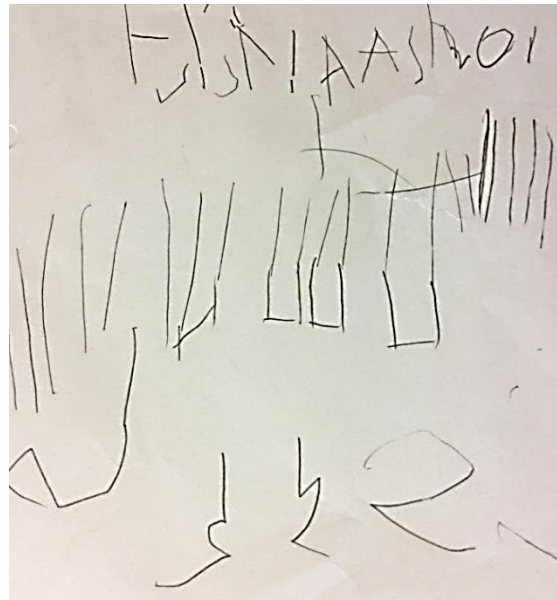


Figure 4.23 Tia’s More Advanced Letter-writing and Conventional Writing

Isaac used the letters of his name in rows and scribbled over the letters to form two lines of print. This same format was continued, with name writing covering the rest of the page. At times the writing included only the upper case “I” and at other times two, four, or all of the letters of his name. On another sample, Isaac’s work included random letters and marks scattered across the page with his name correctly written in the lower right corner. Chance and Brittney produced the two functional spellings: during week eight, Chance wrote “HCLLeesseT” to represent the word “cheerleader” (see Figure 4.24). As she described her paper she pointed to her letters and said, “cheerleaders.” “Upon further inspection, the letters did include a “C,” an “H,” three “e’s,” two “L’s,” a

“T,” and two “s’s. “ This functional spelling was quickly identifiable once Chance labeled the word and explained her work.

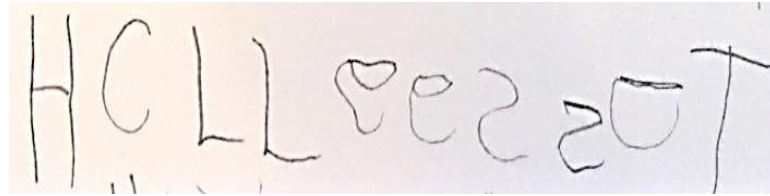


Figure 4.24 Chance’s Functional Spelling of Cheerleader

Brittney’s attempt at writing *house* was on the label of her drawing from observation nine (see Figure 4.25). She wrote, “Hos.” She described the work to the teacher, who wrote the words on the drawing, “This is our house and a rainstorm.” Both Chance and Brittney’s functional spellings were done in the last quarter of the data collection. Two months had passed since data collection had begun, which gave the girls some time to mature in their understanding of the alphabet and letter sounds. Functional spelling was an advanced understanding for pre-kindergarten children. It demonstrated the girls’ increasing abilities and understanding and their development towards understanding traditional spelling conventions over the data collection period.



Figure 4.25 Brittney’s Functional Spelling of House

Brittney and Chance showed advancing abilities in letter-sound correlations and textual representation of words with alphabet letters. This progress evidenced developmental physical, cognitive, and linguistic growth and can be viewed as developmentally appropriate because the girl's experiences with writing were student-driven, student-selected, and available as a form of play in the dramatic play environment.

The stages of writing evidenced by the children's work samples are Clay's (1991) stage of repetitive forms in Tia's writing while Brittney and Chance showed more proficiency in their writing. Clay (1991) discusses children's writing as "extremes between no skill and competence" (p. 102). When analyzing the data related to alphabet writing and invented spellings, I found a range of abilities that represented varying stages of writing development and of cognitive development as well. The functional spellings demonstrated that some children were making connections between thoughts, spoken words, and written text (Vygotsky, 1962/1986). Both the alphabet exploration and functional spellings demonstrated Clay's (1991) notion that children write when given the opportunity to explore writing before they are able to read.

Writing Connected to Personal Interests

In addition to the functional spellings of *cheerleader* and *house*, which demonstrated the children's interest in cheerleading and home and family, the children revealed a close connection to self with name writing and a close connection to their family members as they wrote their family's name and created drawings and writings for them. In addition, the children connected their writing to personal experiences as they wrote and created drawings about Disney's movie *Frozen*. Because the children had not

watched this movie at school, their writing and play with *Frozen* showed their ability to connect personal experiences from home and family and represent those experiences in writing at school. This theme emerged in the student work samples and was consistently evidenced as a topic of interest to the children in writing. *Frozen* also emerged in the children's imaginative house play.

“It’s about Elsa,” Chance said (see Figures 25 and 26), “And I made her a heart and sun and a heart and a star and a ribbon...and a present” (observation six). “I’m celebrating Anna’s birthday!” Chance used a pencil, a pen, markers, and stamping markers in observation six to create a drawing in which she had stamped a smiley face, stars, hearts, and a butterfly on the paper with stamping markers and said, “That’s Elsa’s, that’s Elsa’s, that’s Elsa’s, that’s Elsa’s, and that’s Elsa’s!” Chance continued with her representations relating to *Frozen* during observation seven. She drew Elsa’s and Anna’s presents and said, “These lines over here are Elsa and those are Anna’s.” On several occasions, Chance created drawings and written documents related to *Frozen*.



Figure 4.26 Chance's Drawings and Stamping for Elsa and Anna from *Frozen*

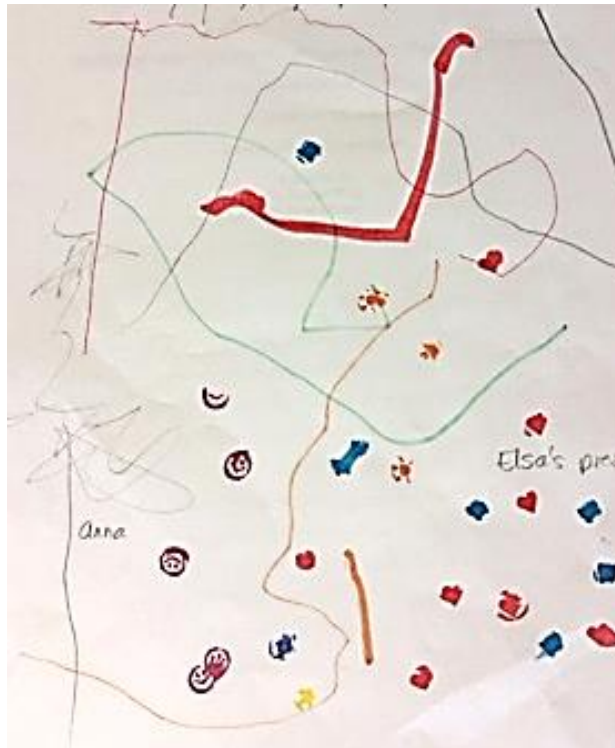


Figure 4.27 Chance's Drawing and Stamping Elsa's Present with Ribbons (Notes written by adult)

Chance was not the only child whose personal experiences and connections to the movie were reflected in writing and play. During observation ten, Brittney picked up the baby doll while playing with Hannah. Hannah said "What's her name?" Brittney said, "I don't know." Hannah said, "You get to name her." Brittney responded, "Elsa." Although the children did not write in this scenario, they connected to the *Frozen* theme in imaginative play. On one occasion, the play materials were used imaginatively to create ice. During observation eleven, Chance used the writing materials as play materials: while engaged in play, she took the wooden alphabet stamps, put them in a pan, and said, "This is ice." She carefully removed the stamps from the pan, placed them into a muffin pan, and placed the pan in the oven (Figure 4.28). The ice she was making represented the ice in *Frozen*.



Figure 4.28 Using Alphabet Stamps in the Muffin Pan to Make Ice

Each example of the children connecting personally to the *Frozen* movie theme in writing (and in play) emphasized the pre-operational stage of cognitive development identified by Piaget (1962). Chance was the most interested in the movie theme and used

it often and very descriptively to produce some of the most creative and colorful stories collected during the study. This highlights the influence of pop culture on Chance's writing. Because of its popularity, *Frozen*'s themes, characters, and scenes are commonly found in children's toys, clothing, and music. These items were in the child's world and became a part of the child's personal experiences, usually with home and family. Their influence was observed in the children's imaginative writing play and imaginative house play.

In addition to writing about *Frozen*, Chance also connected *Frozen* to her play experiences and interacted with other children using the theme in imaginative house play. As in all other observations, the children did not connect the writing and play but created the writing separately from play and separately from the other children. In these examples, the *Frozen* movie theme elicited the most interesting and descriptive writing samples and some of the most inventive and imaginative use of the writing materials.

Conclusion

While many understand the pressures imposed on the early childhood classroom by increasing the difficulty of early standards beyond the developmental abilities of children, there is uncertainty about how to handle these pressures within the parameters of constructivist pedagogy and developmentally appropriate practices. This study demonstrated that Clay's (1991) notion that young children write before they begin to read applies to pre-kindergarteners in the 21st century. This case study has also demonstrated that using a constructivist perspective provides a developmentally appropriate avenue from which to approach providing writing experiences to today's pre-kindergarteners.

Some early childhood programs and educators have begun to eliminate play activities in an attempt to focus on academic skills. Practice workbooks or worksheets are commonly promoted in schools as a means to meet the required standards. The writing samples produced in this study evidence that pre-kindergarten children can expand on their existing abilities when given opportunities to play with writing in a dramatic play center in developmentally appropriate ways. While the findings of this case study cannot be automatically transferred to other schools or classrooms because each child is unique and individual, its implications can inform the pedagogical practices of early childhood educators who are working to satisfy standards and properly prepare students for success in kindergarten.

Developmentally appropriate practice calls for active learning approaches (Copple & Bredekamp, 2006; NAEYC, 2009). The data collected in this study demonstrated that in self-selected play sessions, pre-kindergarten children played with writing. The play facilitated practice with name writing, letter formation, the rules of directionality and the format of conventional print, letter-sound production, and functional spellings. The children consistently wrote their own name and the names of their closet family members. The children also created some drawings and written documents that represented their life experiences with family, home, and pop culture, as seen in the incorporation of the family and the *Frozen* movie theme. The stamps encouraged writing and imaginative writing play; however, there were no significant stories relating to stamped pictures. The stories about the written work created with pens and pencils offered significantly more insight into the children's writing and thinking. Traditional writing utensils had the most positive influence over writing experimentation and the

representation of conventional writing that carried a message or meaning. Although play was occurring constantly at the center, the children did not use the writing materials in the context of the home setting to create meaningful written messages or to connect their imaginative writing play to the imaginative house play. Just as the writing materials influenced the writing, the housekeeping props and toys influenced the dramatic play. The influence of the materials in both play and writing was significant.

The most significant finding in this study was that through play, pre-kindergarten children constructed knowledge that led them to advanced writing, which was most vividly evidenced in name writing and functional spellings. The study revealed that through self-directed play activities, writing in the dramatic play environment provides developmentally appropriate opportunities for children to explore concepts and to achieve educational standards in writing that reach beyond those expected in the pre-kindergarten program. The implications of these findings on pre-kindergarten instructional practices is timely as the requirements for early literacy are imposing greater demands on early childhood educators and programs. The findings show that the constructivist perspective provides support and justification for teachers to provide pre-kindergarten children with writing activities in the play environment and to advocate for allowing children to construct knowledge through play experiences.

CHAPTER V

CONCLUSION

Introduction

Addy's story was my inspiration for seeking an improved understanding of pre-kindergarten writing. Her early ability to represent her thoughts on the page, receive writing coaching, and revise her written work drew my attention to pre-kindergarten writing. Addy's writing became more intriguing as I considered Clay's (1991) research, which rests on the notion that struggling readers can be supported with early intervention as she theorized that "the first explorations of print in the preschool years may occur in writing rather than reading" (p. 108). Clay (1991) proposed that writing materials be made available to encourage a child's first writing. Addy's writing products were produced in a writing center. Writing in the writing center is similar to experimental writing in other play centers. Writing at the dramatic play center, for example, is also intended to allow children to engage in writing exploration and experimental writing.

In addition to the significance of early writing exploration, the importance of maintaining developmentally appropriate practices is emphasized at a time in education when standards are imposing pressures on early childhood educators to engage students in an academic, skill-oriented curriculum (National Governor's Council, 2010; Snow, 2011). The possible reduction in the amount of time and number of opportunities for play

activities and the increase in rote memorization and paper and pencil tasks in pre-kindergarten imposes a serious risk to the constructivist pedagogy shared commonly by early childhood educators as best practices in early childhood education. A reduction of play activities and the emphasis on a skill-oriented curriculum also imposes a serious risk to the use of developmentally appropriate practices as advocated by Jones and Cooper (2006), the NAEYC (2009), and Snow (2011). The theoretical propositions supporting this study find their roots in these 21st century realities.

Theoretical Propositions

The theoretical propositions for this case study were (1) The importance of providing developmentally appropriate experiences that enrich linguistic development and literacy based on the guiding principles of developmentally appropriate practice as described by Copple and Bredekamp (2006); (2) the notion that young children explore, experiment with, and produce writing before they learn to read, as described by Clay (1991), and that these activities contribute to the child's individual understandings and development relating to writing and to the relationship between thought and words (Vygotsky 1962/1986); and (3) the commonly shared constructivist approach to early childhood education which promotes facilitating a child's active engagement, through play with people and objects in the world, to encourage knowledge construction and the development of mental structures that are built upon the child's prior knowledge and experiences (Castle, 2012; Piaget, 1973).

In light of continually changing standards, the increasing difficulty of meeting these standards, and pressures on today's educators because of the standards, I began to believe that there would be significant value in exploring and understanding what

happened as children engaged in writing in a play environment. The dramatic play environment was selected because of its importance in providing children with play opportunities and for its potential ability to facilitate writing exploration in a developmentally appropriate environment (Clay, 1991; Morrow, 2007; NAEYC, 2009; Neuman & Roskos, 2002; Saracho, 2001). This chapter includes a summary of the findings as they relate to the research questions and theoretical propositions, a discussion of the findings, and suggestions for future research.

Research Questions

The research questions driving this study were what happens to pre-kindergarten children's writing when they engage with writing in a teacher-created dramatic play environment in a public pre-kindergarten center in Oklahoma, what happens within the dramatic play environment, and what happens when pre-kindergarten children produce writing while they are engaging in dramatic play?

Interrelationship of Writing and Play – Findings from the Case Study

The data collected for this study demonstrated that the children eagerly and consistently self-selected and engaged in play activities at the dramatic play center. Although imaginative play was occurring regardless of the activity the children selected, the play at this free-choice center included student-directed imaginative writing play and imaginative house play. The children's behaviors and activities at the dramatic play center resulted in several findings. First, the children engaged with writing and connected writing to self, to family, and to personal interests. The writing was inspired by the materials that were available and represented varying developmental levels and development during the data collection. The act of writing was individual, not social. The

writing samples demonstrated Clay's (1991) notion that children engage in writing exploration before they are able to read. Within their writing exploration, the children constructed new knowledge based on their existing knowledge of home, family, and personal interests. The *Frozen* movie theme and family and personal interests elicited the most interesting and descriptive writing. Throughout the study, a high level of interest was observed when new writing materials were introduced to the dramatic play center. Name writing, functional spelling, and imitations of conventional print were accomplished primarily using pens and pencils on unlined white paper. The stamping materials encouraged play with writing materials. Although the stamping did not produce conventional writing or descriptive stories, the stamps provided an opportunity for the development of both fine and gross motor strength and coordination that contributed positively to physical development and future writing with pens, pencils, markers, or other traditional writing utensils. Although imaginative play was constantly occurring, the children did not integrate imaginative house play and imaginative writing play.

Constructivist Practices in the Dramatic Play Environment

What happened to pre-kindergarten children's writing when they engaged with writing in a teacher-created dramatic play environment in a public pre-kindergarten center in Oklahoma? The children engaged in developmentally appropriate play activities that stimulated imaginative and symbolic play and produced creative writing, drawing, and conventional writing. The data showed that the children self-selected the dramatic play center and engaged in house play or writing play in a relatively balanced manner over the twelve-week observation period, with only one child declining the opportunities at the dramatic play center.

The engagement at the dramatic play center evidenced that the children opened opportunities for developmental growth and the construction of new knowledge in the cognitive, social, emotional, physical, and linguistic domains as oral and mental thought were translated to writing exploration and conventional writing. The dramatic play environment included both developmentally appropriate and constructivist teaching practices. Self-selection during free-choice center time illustrated the teacher's use of an intentionally-created play environment. Both active imaginative play and imaginative writing play set the stage for developmentally appropriate and constructivist learning opportunities using toys, materials, furnishings, and supplies to facilitate hands-on learning that was based on familiar experiences with family and home. The children were given opportunities to authentically interact, determine the play, organize and assume the roles of the players, and direct the progression of play with housekeeping and play with writing through problem-solving and verbal negotiations. These play interactions were the catalyst for the construction of new knowledge that contributed to the cognitive, social, emotional, physical, and linguistic development identified by Copple and Bredekamp (2006) and Strickland and Schickedanz, (2009). These constructivist ideas find their roots in the constructivist pedagogy of Piaget (1962) and Vygotsky (1962/1986; 1978).

In writing play, the children evidenced their construction of new knowledge based on their existing knowledge of home, family, and personal interests. This finding evidenced the children's pre-operational stage of development, which identifies children as egocentric and therefore focused on their own lived experiences (Piaget, 1962). From a constructivist perspective, the findings tied to personal experiences demonstrate the

importance of children's engaging in the social interactions found in role play, house play, and other student-led imaginative play. These findings reflect Vygotsky's (1978) modes of representation and speech that represent a progression in speech from babbling to inner speech and modes of representation from gestures to writing. The children in this study explored the play and writing materials just as they are by nature continually exploring the people and objects in their world; they were constructing knowledge, often physical knowledge of the world and objects in it. These findings evidenced the construction of new knowledge associated with both physical knowledge gained through experiences with play materials and cognitive and linguistic knowledge gained through social interactions with others.

Examples of both developmentally appropriate and constructivist practices were identified in the rich and descriptive writing produced in relationship to the children's families and personal interests represented by the *Frozen* movie theme. Not only did these writings represent family and personal experiences, they also demonstrated the construction of knowledge about conventional writing. In addition to writing about family and personal experiences, name writing represented exploration of conventional writing and was tied to both prior knowledge and personal experiences from the perspective of a pre-operational child.

Although writing development was not the focus of the study, it was evidenced in the progression of student abilities in name writing and functional spellings, for example in the circular alphabet exploration early in the study that was later replaced with writing letter forms in linear patterns as the children gained a more advanced understanding of the directionality of conventional text and in the functional spellings that represented

letters and sound relationships late in the data collection period. The progression from basic to more advanced levels of writing represents the constructivist perspective on development from concrete to more abstract thinking.

Because the children built on prior experiences as they constructed new knowledge, the advancing abilities demonstrated by functional spellings can be attributed to the children's exploration of letter sounds in various ways and in various situations. In this classroom, the children were exposed to letters and sounds in whole group instruction that included intensive work with oral language through reading, singing, and games with letter sounds and words. The children received small group instruction that included writing opportunities through journaling and dictation, sharing their work with the teachers and other children, and individual interactions with the teacher relating to their drawings and writing. The children are also provided with plentiful opportunities to engage with free choice play centers that include literacy and writing materials.

The Act of Writing Is Individual, not Social

Drawing from the social constructivist theory of Vygotsky (1962/1978), the interactions found in the children's play illuminated the reliance on social interactions and language. While the children were engaged in imaginative house play, their social interactions were vibrant, consistently including both verbal and non-verbal exchanges. When the children were pretending to be cats or dogs, they typically interacted using non-verbal gestures and animal sounds. These communications were effective and contributed to maintaining the play.

Vygotsky (1962/1986) believed that children are exposed to a verbal environment from birth and that learning occurs through social interactions. The vibrant spoken

interactions between the children during play evidenced the facilitative role of interactions and language in play. The advancement in the children's modes of representation to the highest and most advanced form of writing was a result of the use of speech and language during play. While writing was not produced during play, the study evidenced a variety of levels of speech ranging from gestures to soundless speech and modes of representation ranging from talking to writing based on the constructivist perspectives of Vygotsky (1978).

Developmentally appropriate constructivist learning opportunities facilitate the pre-operational child's reliance on personal experience as the foundation for the construction of new knowledge (Piaget, 1962; Vygotsky, 1962/1986). The findings demonstrated that the children focused on self, family, and personal interests for constructing knowledge in both imaginative writing play and imaginative house play and that their spoken exchanges were vibrant and contributed to maintaining and directing the imaginative house play activities. These familiar scenarios were observed in every play session regardless of whether the session was focused on house play or animal play. This type of free imaginative play provided young children with opportunities to express verbal thought, experiment with words, and translate those mental thoughts into words for use as tools for cognition.

As the children organized their imaginative house play, they almost always chose the roles represented in a family: mom, dad, children, and pets. This pre-operational symbolic play suggested that the children used play to represent their lived experiences from home and family and also that the children relied on social and cultural experiences as they played. These experiences mirrored the use of family and personal experiences

found in the writing play and evidence the constructivist perspective as well as the developmentally appropriate practice which allows children opportunities to play with real-life objects and events (Copple & Bredekamp, 2006; NAEYC, 2009). These experiences relied on social skills that are essential to establishing the house play and role play and require expressive and receptive language exchanges.

Although the spoken exchanges during imaginative writing play were not frequent, the children used oral language to provide details about their writing during interviews and interactions with the teacher. The most descriptive details about writing were provided in relationship to writing about family and personal interests demonstrating the important role of both the constructivist approach, which builds on prior experiences, and the developmental pre-operational stage in which children rely on the experiences that are closely related to them personally (Piaget, 1962; Vygotsky 1962/1986).

In imaginative writing play, the spoken interactions were minimal; the children focused intently on their writing and did not interact socially. The limited exchanges contrast with their vibrant verbal and non-verbal interactions during the imaginative play sessions. While these interactions may have evidenced the children's ability to create a written message that communicated their thoughts as representations in textual form, the spoken descriptions of the written works demonstrate that the children's work did carry intended and meaningful messages. The writing relating to self, family, and personal interests, produced written works for which the children were able to orally provide the most descriptive meanings.

Another possibility that may have limited verbal interactions during writing was the focus the children maintained as they engaged with the writing materials. Although the play and writing were separated, the activities can best be described as imaginative house play and imaginative writing play. The imaginative writing play was not considered written work by the children. While the children engaged in imaginative writing play, they were focused on their writing but comfortable as they moved around the center, lay on their tummy to write, shared the bench as a table for writing, and occasionally spoke to the teacher. The writing focus impacted the frequency of their spoken exchanges. The limited social interactions clearly evidenced the children's use of inner speech, one of Vygotsky's (1978) levels of speech. Additionally, the children's writing work and social interactions represented the most advanced mode of representation, writing.

Writing Inspired by Materials

While the children were engaged in imaginative house play or role play, they did not usually interact with writing materials. When the children were playing with writing materials, they generally wrote and did not interact with play materials. This pattern was especially evident when new writing materials were introduced: when the writing materials were fresh, the children selected to play with writing and did not choose the house play materials. This focus on exploring these physical objects shows that through the active exploration and use of the writing materials during play the construction of knowledge occurred. The purposefully planned dramatic play environment gave the children free choice of the center, allowed for free exploration of objects and materials, and, therefore, allowed the children to construct knowledge using a developmentally

appropriate and constructivist approach. Because of the increased interest when the fresh writing materials were introduced, the study demonstrated that the writing materials had an influence over the play with writing.

Although it is natural for children to be interested in new toys or materials, the children's behaviors were modified because of the introduction of new writing materials. An uptake in interest was seen when the paper, dry erase boards, markers, and pencils were first introduced, when the stamps were introduced, and when the dry erase crayons were introduced to the whole group carpet area. An obvious example of this was found when the children waited in line to play with the theme stamps. They forfeited their opportunity to play in other centers and forfeited free-choice play time to have the chance to use the new stamping materials. The finding that children eagerly seek new materials in writing play creates the potential for the introduction of different or new play materials to have the same effect on the house play.

The dramatic play materials in the center remained the same throughout the study. The children used these materials creatively to invent games; however, the interest in the house play materials waned over time, resulting in repeated and ongoing imaginative cat and dog role play scenarios. Although the children were creative with the use of materials for playing house, they did not produce writing that was a result of the house or animal play. This finding creates the potential to investigate what would occur if the play were planned to intentionally integrate writing play.

Writing Connected to Self, Family, and Interests

The name writing, alphabet exploration, functional spellings, and drawing and writing about self, family, and personal interests demonstrate Clay's (1991) notion that

children engage in writing exploration before they are able to read. The findings evidenced what happens when pre-kindergarten children produce writing while they are engaged in dramatic play. Although imaginative play did not intersect with the writing play, the children engaged in meaningful writing experiences and exploration that demonstrated their increasing understandings and competency with conventional print. The children's written representations of self, family, and personal interests evidenced their use of prior knowledge and the process of constructing knowledge through writing exploration.

Although the writing play activities were considered developmentally appropriate and constructivist in methodology, the most significant connection between the theoretical proposition that children explore writing before they are readers was found in the written products that evidence the children's exploration and experimentation with conventional writing. Name writing represented the most common writing product, which showed the pre-kindergarten student's perspective focused on self. Conventional writing focused on family and personal experiences was also common and was represented not only in drawings of family, home, and personal interests as seen in *Frozen*, but also in functional spellings of *house* and *cheerleader*. As mental thoughts become words on the page, children's mental thoughts are used in language and these mental and spoken words are used to explore written text (Vygotsky, 1962/986; Vygotsky 1978).

The data evidenced exploration of writing that included name writing, alphabet exploration, and functional spellings. Conventional writing included the child's name writing, family name writing, drawings involving home and family members, and experiences and interests from home in writing about *Frozen*. Jessica's improvements in

name writing and Tia's growth from letter exploration to conventional linear print demonstrated the construction of new knowledge.

Writing Play Demonstrated Writing before Reading

The children's name writing, alphabet exploration, and functional spellings evidenced Clay's (1991) notion that the children have their first experiences in writing before they become readers. The findings from this study have strong implications for early childhood pedagogy that is currently being influenced by academically-focused standards that may reduce play-based activities in the pre-kindergarten classroom. As the standards impose advanced literacy skills on young children, reading is often the focus of classroom instruction. This instruction is the catalyst for removing play and providing structured academically-focused instruction. Clay's (1991) notion that young children explore writing before they are readers draws attention to the idea that, as a natural process, writing should be the focus in pre-kindergarten classrooms to facilitate early literacy development.

Regardless of the writing, drawing, or stamping that was produced, the children were very consistent about writing their name on their work. The name writing on drawings and conventional writing as well as the name writing for the sake of writing one's own name evidenced that the children were relying on what they already knew to produce writing. Just as did writing their own name, writing that included the names of family members was commonly demonstrated in drawings and relied on the child's prior experiences and on prior knowledge. The reliance on prior knowledge was also evidenced in the drawing samples and in the invented spellings that demonstrate the construction of writing knowledge scaffolded on both personal experiences and prior

knowledge. Writing growth and development was identified within these writing samples and was clearly demonstrated in the progress from circular alphabet exploration to linear alphabet exploration, in the progression from alphabet exploration to functional spellings, and in the children's abilities to write their own first name, their own first and last names, and later the names of their immediate family members.

Family, Home, and Personal Interests Produced the Most Descriptive Writing

The children produced name writing, drawing and writing about family and personal interests, drawing and writing about *Frozen*, and alphabet and functional spellings. The children enjoyed drawing and writing about people and experiences that were close to them or very familiar to them. As the children produced these drawings and written works, they were able to orally describe their work to the researcher. The teacher wrote the children's descriptions on some of the work samples as they presented their samples to her during the play sessions. These descriptions often detailed the intended meaning behind the writing which was often an exploratory creation that was not legible or identifiable to the researcher or teacher without the child's oral description. Writing about *Frozen* is a vivid example of the children's writing about family and personal experiences; because of its importance to the children, their writing about *Frozen* produced some of the most interesting and descriptive stories.

The examples of functional spellings also represent personal experiences and activities. The words *house* and *cheerleader* carried meaning because of the close personal ties between the children and their life experiences. Brittney drew her house in a rainstorm, which depicted a familiar scenario from personal experiences drawn from another place and time outside of school. As the children explored writing and drawings

that reflected personal life experiences and close family ties, they were not just exploring the conventions of print but were also demonstrating their ability to scaffold new constructions on prior knowledge as they transferred meanings from mental thoughts or inner speech into representational verbal words and drawings. Not only did name writing, alphabet exploration, and functional spellings evidence Clay's (1991) notion that a child's first explorations occur with writing, but also evidenced that the writing produced in a developmentally appropriate play environment contributed to writing development and provided opportunities for children to progress towards mastering the academic standards required by states and districts during the pre-kindergarten academic year.

Meaningful Messages with Pens and Pencils

In every observation, the availability of writing materials influenced the children's writing play. The writing produced with pens and pencils included name writing, alphabet exploration, functional spellings, and writing about *Frozen*. These basic writing supplies produced writing samples that evidenced exploration with conventional writing and text and evidenced writing development over time. Because of these findings, the study demonstrated that the use of these pencils, pens, markers, and unlined white paper positively affected the children's production of conventional writing samples.

Stamping encouraged writing exploration.

The findings related to materials suggest that although the children were eager to play with stamping markers, stamps, and ink pads, their conventional writing was most obvious in the works created with pencils, pens, and unlined white paper. These materials produced writing that carried a meaningful message or told a story. Occasionally, both stamping materials and basic pencils, pens, and/or markers were used to produce

drawings and writings with very descriptive messages. However, stamping alone did not lead to descriptive stories or messages.

In terms of physical development, the fine motor skills and the gross up and down movements used during stamping did provide the children with opportunities to develop strength and coordination that will contribute positively to future writing. Stamping markers, stamps, and ink pads also provided opportunities for the children to construct physical knowledge through the active exploration of these objects and materials.

Further Discussion –Writing in Dramatic Play and Early Childhood Pedagogy

Because play is a powerful mode of learning for children between the ages of two and six, the use of play as a vehicle for constructing knowledge is considered the most educationally beneficial approach in the early childhood years (Elkind, 2007). The National Association for the Education of Young Children (NAEYC) (2009) promotes the use of play as it encourages language, cognitive, and social competence and allows children to develop problem-solving and symbolic skills as they develop the ability to control and express emotions. The components of NAEYC's (2009) statement (language, cognitive, and social competence, problem-solving and symbolic skills, controlling and expressing emotions) were reflected in this study and supported the use of play as a developmentally appropriate approach to promote early writing exploration.

The findings from this case study evidence the value of play in regard to developmentally appropriate practices, constructivist pedagogy, and early writing exploration. The findings were also substantiated by reviewing the literature on the significance of early childhood as a critical developmental stage of life, the importance of play in early childhood development, and its on cognitive development. Although these

studies were general in nature, they evidence important and interrelated components of early childhood pedagogy which is commonly applied by pre-kindergarten teachers. This study provides pre-kindergarten teachers with much needed evidence to substantiate and advocate for the use of play as an effective instructional approach in the 21st century classroom with today's pre-kindergarten learners.

Early in educational history, Plato (380 B.C.) promoted play by saying that children's lessons should be presented through play. Plato (380 B.C.) believed that rote memorization may not harm the child but does not produce knowledge that will stay with the child. Play as a pedagogical approach is found more recently in the work of Piaget (1952), Elkind (2007), Greene (1995), Paley (2004), and Roskos and Neuman (As found in Neuman and Dickinson, 2002). As these more recent educational leaders promote constructivist imaginative play, we find that Plato's (380 B. C.) ideas on play are commonly shared by 21st century early childhood educators. It is imperative that today's early childhood educators continue to apply the teaching theories of both past and present leaders as they plan lessons and activities using a constructivist pedagogical perspective which relies on the premises of developmentally appropriate practice.

In this study, the findings showed that the dramatic play center provided opportunities for children to construct knowledge about play and knowledge about writing in an appropriate and developmentally influential and educationally valuable approach to meeting pre-kindergarten standards for preparing children for kindergarten expectations. More specifically, writing knowledge in this study was evidenced as it related to conventional writing in the form of name writing, alphabet exploration, functional spellings, and writing about family and personal experiences.

This study was not designed to focus on population. However, the population limits were a definite factor in the children's access to the center and therefore changed the course of potential play activities at the center. To better understand how population limits influence play in free-choice play settings, more research on both population limits and self-regulated populations is needed.

Writing growth and development was shown across the course of the study. Although understanding writing development was not the intent of the study, writing growth emerged as a topic for future research. This twelve-week study began in November and was completed at the end of January. However, near the end of the data collection in January, the children began to demonstrate a more sophisticated use of conventional print. It would be very informative to follow pre-kindergarten children during the second semester of pre-kindergarten, when they are more competent with writing and have a better understanding of the letter and sound relationships found in conventional text.

While play experiences produced less tangible evidence than the writing play, the observations indicated that physical knowledge was being constructed through the repetitive manipulation of the plastic food and other play materials, linguistic knowledge was gained through vibrant social interactions, and the potential for neurological development was present as the children experimented, explored, and interacted together during play. Construction of knowledge, linguistic development, and neurological development are intrinsic, individual, and dependent on the prior experiences of each unique child. In this study the children chose to eagerly participate in play opportunities

that made the construction of knowledge, linguistic development, and neurological development, possible and available to them individually.

The unique merits of this study are found in the uncommon opportunities for pre-kindergarten children to construct new knowledge about writing scaffolding on prior knowledge through interactive imaginative and symbolic play experiences. This study fills the gap in the existing literature related to pre-kindergarten writing in play environments, specifically, dramatic play.

While many other studies provide insights into literacy skills and/or experiences related to the writing center, this study focused specifically on writing exploration. This study evidenced that pre-kindergarten children not only explored writing during play but also engaged with various conventional writing skills as they relate to pre-kindergarten and kindergarten standards. Examples of the development of these skills were found in repeated name writing practice, in functional spellings, and alphabet exploration.

The study evidenced that children can develop the academic skills necessary for more advanced writing requirements in kindergarten through play in the dramatic play environment in pre-kindergarten. This information liberates teachers of young children from the standardized skill-oriented curriculum that is being promoted in the pre-packaged curriculum designed and marketed for pre-kindergarten. Therefore, this study provides substantial support for the use of play as an instructional approach to achieving writing skills commonly mandated by states for pre-kindergarten classes.

Researcher Reflection

It has been understood not just for years but for centuries that play is a positive means of learning for young children. Beginning with Plato and moving forward to the

21st century, educators, educational theorists, and educational leaders have promoted play as an instructional approach. As we face academic pressures in today's climate of teaching to the test, it is important to remember that there is no question about the value of play as a child's work. The question we face is how to deal with the educational standards that are being applied further and further down, to the point that the precious and brief span of time known as early childhood is in jeopardy of being erased. This life stage is the right of the child. It is a time when curiosity, creativity, and innocence combine to provide irreplaceable opportunities for growth and development through the unique perspective of the child.

During this study, I had the rare opportunity to spend time watching pre-kindergarten children play to better understand what happens when children are given autonomy over their construction of knowledge about writing in the dramatic play environment. In this classroom, the teacher maintained an excellent relationship with the parents and guardians of her students. She is highly respected in the community and gained the trust of parents through her delivery of excellent pre-kindergarten experiences to both the children and their parents/families. The two-way ongoing communication and strong parent involvement that was established prior to the onset of the study provided an easy gateway into gaining parent support and consent for child participation in the study.

I believe that a similar amount of respect and communication was also present because of the relationship I maintain with parents and community members as the principal of the school. While there may have been some degree of desire to help with the study, I do not believe that the parents and children felt forced to give their consent for child participation. As the principal of the school as well as the researcher, it was my

intent, to transparently illuminate potential coercion in the research design. Although obtaining the parental consent of all nineteen children may give the appearance that the parents felt compelled to agree to give consent to the principal, I believe that the consent was freely and willingly given because the parents and families are on board with the school and that support began with the classroom teacher.

Several times during the study, my relationship with the children influenced the children's actions to some degree. Because the children were very comfortable with my presence, they played naturally and freely. Because of my relationship with the children, the children wanted me to see what they were writing and what they were playing. When writing was produced, the teacher visited with the children about their writing; afterwards, they wanted me to see it as well. I distanced myself from the center but found myself taking a couple of pictures of the writing samples because the children asked me to take a photograph of their writing. They knew I was there to watch them play and they wanted me to see what they were doing and what they were writing. The sharing of the writing with the teacher and I did seem to please the children and may have exerted a motivational factor on their writing. Sharing writing did not influence or complicate the data collection. I simply have a few photographs of writing samples that I was also able to collect in hard copy form as well. I have a large collection of writing samples because the children were eager to give them to me once they were completed.

Another development during the study occurred when the teacher participant wanted to find out what my data were revealing to me mid-way through the study. The faculty at the school and I have very open and strong ongoing dialog relating to best practices and teaching methods. Because this open communication is an inherent

component of the culture within the school, the teacher was interested to know what I was finding. Because I did not want to influence her instructional decisions with materials or the set-up of the environment at dramatic play, I was open with her when I told her that I would talk with her about it after the data collection was complete. She and I have had these conversations and will continue to talk about the findings as we work to improve teaching and learning in our school. She has been given access to the data that were collected in her classroom.

One of the biggest surprises of the study was the separation of imaginative house play and imaginative writing play. Although both were imaginative play, the children did not use writing during imaginative house play. This was a result that I did not expect to find. I thought I would observe children writing as they were pretending to be mother, dad, and children in the house. This simply did not occur.

Another surprise was the role the stamps played during data collection. I was not surprised to see the children eagerly playing with the stamps; however, I was surprised to find that the stamps did not produce significant written work and played only a small role in producing samples that represented a story or carried a message. I was not surprised that pens and pencils produced meaningful writing samples, but was surprised at the extent to which the pens and pencils became the most important writing materials in terms of producing written work that demonstrated that writing in the play environment makes a significant contribution towards the mastery of state-required standards for pre-kindergarten.

In relationship to educational practice, the study solidified the importance of play, the importance of providing writing materials in the play environment, and the value of

play in terms of constructing knowledge and progressing towards required standards. As we see educational demands stealing away childhood by erasing play from the early childhood classroom, it is more important than ever before to ground classroom practices in educational theory that substantiates developmentally appropriate practices to the point that teachers can justify their pedagogical decisions to school leaders who may not understand the benefits of constructing knowledge through play.

The most important take away is to allow children to play often and freely and to allow children to write often and freely. The study showed that children will choose to write and they will choose to play when given the environment and materials to do so. The results of their writing in play assisted children's development of writing skills. These skills not only met the standards required by states but also exceeded the expectations of pre-kindergarten writing, as in the functional spellings. As Vygotsky (1978) said, "In play the child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself" (p. 102).

Suggestions for Future Research on Writing in Play Environments

Several opportunities emerged for future research relating to writing in developmentally appropriate play environments. Not only would further research benefit the understanding of pre-kindergarten writing in the dramatic play center, it would also increase the understandings related to writing in other classroom centers. The results of this study suggest several possibilities for further investigation into the interrelationship between writing and play that would provide additional information to early childhood educators.

Because writing play and house play did not intersect in this study in a visible way, it would be interesting to investigate the dramatic play center if the play environment were staged in a way that would facilitate writing as a more integral component of the learning environment, for example if the environment were staged as a doctor's office, a school room, or a restaurant, natural environments in which people in the real world write. These play environments could potentially provide more opportunities for the writing and play to more authentically intersect. Since the dramatic play center in this study did not stimulate writing as part of the play experiences, understanding the play under different circumstances would contribute to the existing literature relating to classroom centers and classroom environments that facilitate play.

Additionally, more research could be done to investigate the writing materials or literacy materials and the contributions they make to understanding pre-kindergarten literacy development. The stamping markers, stamps with ink pads, and stagnant play materials in this study evidenced the need for purposeful materials selection. While many teachers use stamps in classroom centers, this study revealed that in regard to writing, pens, pencils, markers, and plain white paper on clipboards produced name writing, writing and drawing about family and personal interests, alphabet exploration, and functional spellings while stamps did not produce writing samples that evidenced the components of conventional writing. In this study the most beneficial writing play materials were pencils, pens, and blank white paper. It would be very interesting to find out what would happen if the play materials were changed as routinely as the writing materials. There is a need for more research on how materials influence the writing and play exploration in pre-kindergarten free-choice classroom centers.

Conclusion

In conclusion, I revisit my central research question: What happens to pre-kindergarten children's writing when they engage with writing in a teacher-created dramatic play environment in a public pre-kindergarten center? Pre-kindergarten classroom teachers are facing pressures to increase skill-oriented activities and reduce the amount of time and space dedicated to free choice center play. This study evidenced the developmental benefits of play and the academic benefits of including writing in the dramatic play environment. In this case study, I found that pre-kindergarteners self-selected imaginative writing play and imaginative house play with housekeeping toys and furnishings. During these imaginative play sessions, the children engaged with writing to produce writing that not only exceeded the standards required of pre-kindergarten but also evidenced growth in the children's abilities over time.

Conventional writing exploration was evidenced in name writing, alphabet exploration, functional spellings, and drawing and writing about self, family, and personal interests. This writing evidenced the benefits of providing writing opportunities for young children in developmentally appropriate play environments and evidenced that writing, in this case, was explored before the children were proficient in reading. It was evidenced in the writing relating to self, family, and interests that the children relied on prior experiences as they constructed knowledge about play and knowledge about writing while they were actively engaging in the self-selected dramatic play environment.

This case study found that early childhood educators should continue to provide pre-kindergarten children with constructivist learning opportunities that facilitate knowledge construction in developmentally appropriate play environments. As standards

continue to impose more demanding and advanced abilities on young children, it is beneficial to know that young children will grow in their abilities and develop conventional writing skills through play experiences. This information substantiated the use of and continuance of play in the early childhood classroom and provided support to early childhood educators as they advocate for plentiful play opportunities in public pre-kindergarten programs.

Developmentally appropriate early childhood activities should allow children to play, protect the play as a valuable component of the early childhood curriculum, protect childhood by advocating for the child's right to play, preserve and facilitate the opportunities for young children to engage with the world and objects in the world to construct knowledge, and resist the temptation to reduce or eliminate play in early childhood. As a fundamental component of a playing classroom, such activities should include writing in the play environment and; a variety of materials, but always traditional pens, pencils, and blank white paper. The materials in both writing play and house play should maintain an intense interest in both the imaginative play and in the imaginative writing play. Lastly, student writing samples, that evidence children's writing stage and writing development will help teachers understanding how to better facilitate children's knowledge of writing as they explore writing at early ages.

School leaders and school policymakers must seek to understand early childhood pedagogy. At an irreplaceable time in child development, it is essential that pre-kindergarten teachers have the freedom to make instructional decisions that provide and maintain developmentally appropriate practices that best facilitate development in all of the developmental domains. This development will encourage children to exceed the

expected developmental milestones and meet or exceed the requirements of state standards.

Returning to the story of Addy's pre-kindergarten writing and the influence she, and many other children, had on this study, I feel fortunate to have had the opportunity to spend time observing and collecting data in the pre-kindergarten classroom as a researcher. As an early childhood classroom teacher, I believe that observing students is a natural and important part of building an understanding of the students and the subjects I teach. During Addy's time in my classroom, I was not aware of the importance and the need for collecting data and studying pre-kindergarten writing. I was privileged to have the unique opportunity to step back in time and find out, as an early childhood educator, what happens when pre-kindergarten children engage in writing as a play activity. The data collection period during this study was a treasured opportunity to concentrate on the purpose of this exploratory case study, which was to understand the interrelationship of students' writing in developmentally appropriate play environments in a public pre-kindergarten class in Oklahoma.

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APPENDIX A

Definitions of Terms

- *Academically-oriented*. Related to academic standards.
- *Academic skills* – Skills identified by state standards for pre-kindergarten students as skills required for pre-kindergarten.
- *Constructivism* – “A theory with the shared belief that “providing children with learning environments and opportunities that encourage them to think, make inferences, and solve problems” (Roopnarine & Johnson, 2000, p. 159).
“The understanding one constructs as a result of experience” (Brown, et al., 2007).
Construction of knowledge through children’s own mental activity. Knowledge is constructed through an active mental process.
“Ontologically relativist, epistemologically subjectivist, and methodologically hermeneutic and dialectic” (Guba and Lincoln, 1990, p. 148).
Researcher’s intent is to make sense of or interpret the meanings others have about the world. Researchers often address the process of interaction among individuals. They also focus on the specific contexts in which people live and work in order to understand the historical and cultural settings of the participants (Creswell, 2014, p. 8).
- *Free-choice play centers* – Play-oriented centers that can be chosen by the student during a designated time of the instructional day.

- *Emergent* – Naturally occurring or developing. “Emergent suggests that growth in this period of development occurs without the necessity for an overriding emphasis on formal teaching, instead the young child develops literacy in the everyday context of home and community” (Teale, 1987, p. 47).
- *Emergent literacy* – “Emergent describes something in the process of becoming – young children are in the process of becoming literacy. “Emergent” suggests that children’s developing literacy is continually growing and continually changing (Davidson, 1996, p. 79). Emergent literacy refers to the point in children’s development before they are conventionally literate- before they can read on their own or write text that others can read (Clay, 1966).
- *Free choice* – Student selected.
- *Imaginative play* – The scaffold that mediates young children’s learning and is the primary source of development” (Jones & Reynolds, 2011).
- *Imagination* - The ability to form rich and varied mental images or concepts of people, places, things, and situations that are not present (Jones & Reynolds, 2011).
- *Play centers* – Learning centers that are designed to facilitate play. Although these are created to facilitate learning, they are not skill-oriented.
- *Literacy stations* – Learning areas that are designed to facilitate growth or development in literacy and literacy related standards/skills. Participation in these stations is not chosen by students but is required of all of the students in a class.
- *Math stations* - Learning areas that are designed to facilitate growth or development in mathematics and mathematically related standards/skills. Participation in these stations is not chosen by students but is required of all of the students in a class.

- *Oral language* – Spoken language.
- *Learning stations* – Areas in the classroom that have been designed to promote learning. Stations are typically academically-oriented and promote skills as identified by state standards.
- *Textual expressions* – Text/drawings created by children to express, in writing, thoughts or spoken language.
- *Literacy development* – Development relating to overall literacy skills which includes reading, writing, speaking, and listening.
- *Writing development* – Progression through a series of abilities, skills, or understandings towards conventional writing.
- *Social constructivism* – “For the social constructivist, reality cannot be discovered. Individuals create meaning through their interactions with each other and with the environment they live in. Social constructivists view learning as a social process” (Kim, 2001, p. 3). “Social constructivists hold the assumption that individuals seek understanding of the world in which they live and work. Individuals develop subjective meanings of their experiences, meanings directed toward certain objects or things” (Creswell, 2014, p. 248).
- *Skill-oriented curriculum* – Curriculum which focuses specifically on academic skills and academic standards and does not promote student-centered or emergent curriculum.
- *Skill-oriented instruction* – Instruction which focuses specifically on academic skills and academic standards and does not promote student-centered or emergent curriculum.

- *Academic instruction.* Instruction that is provided to increase a child's ability to master skills as identified by standards.

Electronic Observation Field Notes Form

Date: _____ Time: _____ Teacher: _____ Place: _____ Observation #: _____

Field Notes:	Head Notes:
Questions for future investigation:	

Non-Discrimination Policy

It is the Policy of [REDACTED] Public Schools to provide equal opportunities without regard to race, color, religion, national origin, gender, age, qualified disability or veteran status in its educational programs and activities, in access to them, in treatment of individuals with disabilities, or in any aspect of their operations. This includes, but is not limited to, admissions, educational services, financial aid, and employment.

The notice is provided as required by Title II of the Americans with Disabilities Act of 1990 and section 504 of the Rehabilitation Act of 1973. Questions, complaints or requests for additional information regarding the ADA, Section 504, Title VII/ADEA and/or Title IX may be forwarded to the designated ADA, Section 504, Title VII/ADEA and/or Title IX compliance coordinators, the site principal or other district administrator. Students or parents may also bring complaints to the assistant principal, counselor, or teacher. The administrator or staff member shall immediately report the complaint to the site principal. The site principal shall notify the appropriate coordinator listed below:

ADA Coordinator Section 504 Coordinator
Director of Special Programs
[REDACTED] Public Schools
[REDACTED] Center
8:00 a.m.-5:00p.m. Mon.-Fri.

Director of Special Programs
[REDACTED] Public Schools
[REDACTED] Center
8:00 a.m. -5:00 p.m. Mon.-Fri.

Title VII/ADEA Coordinator
Assist. Supt. of Personnel/Support
[REDACTED] Public Schools
[REDACTED] Center
8:00 a.m. -5:00 p.m. Mon.-Fri.

Title IX Coordinator
Services Director of Athletics
[REDACTED] Public Schools
[REDACTED] High School
8:00 a.m. – 5:00 p.m.

APPENDIX B

Oklahoma State University Institutional Review Board

Date: Monday, October 26, 2015
IRB Application No ED15143
Proposal Title: The interrelationship of writing and play in a early childhood play environment

Reviewed and Processed as: Expedited

Status Recommended by Reviewer(s): Approved Protocol Expires: 10/25/2016

Principal Investigator(s):

Malinda Lindsey	Jennifer Job
	254 Willard
Stillwater, OK 74078	Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

- The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Scott Hall (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,



Hugh Crethar, Chair
Institutional Review Board

VITA

Malinda Deone Lindsey

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE INTERRELATIONSHIP OF PRE-KINDERGARTEN WRITING
AND AN EARLY CHILDHOOD PLAY ENVIRONMENT

Major Field: Curriculum Studies

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy/Education in Curriculum Studies at Oklahoma State University, Stillwater, Oklahoma in July, 2016.

Completed the requirements for the Master of Education in Early Childhood Education at Northeastern State University, Tahlequah, Oklahoma City, in 2005

Completed the requirements for the Bachelor of Science in Elementary Education at The University of Tulsa, Tulsa, Oklahoma, in 1985.

Experience:

Muskogee Public Schools – Principal MECC & Tony Goetz Elem., Fort Gibson Public Schools - Pre-K, K-2 PE, First & Fifth Grade, Northeastern State Univ. – Early Childhood Instructor, Bacone College – Early Childhood Instructor, OSDE - Master Teacher Project, Broken Arrow Public Schools – Fourth Grade

Professional Memberships:

Phi Kappa Phi, Golden Key, Neighbors Building Neighborhoods, Muskogee County Head Start Policy and Governance Councils, Smart Start Muskogee, CCOSA, OAESP, NAESP, ASCD, Professional Oklahoma Educators